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ABSTRACT

This booklet uses both words and photographs to describe behavior patterns typical of children from one to two years old and to suggest home play activities appropriate for use with children of this age. The booklet is organized into four age ranges: 12-15 months, 15-18 months, 18-21 months, and 21-24 months. Within each of these sections, a general overview is presented and typical behaviors and activities of children are described under four headings: learning about self and others, discoveries and achievements, problem solving, and imagination. Directions for making toys at home are contained in the final section. (JMB)

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From One to Two Years

by Marilyn Segal and Don Adcock

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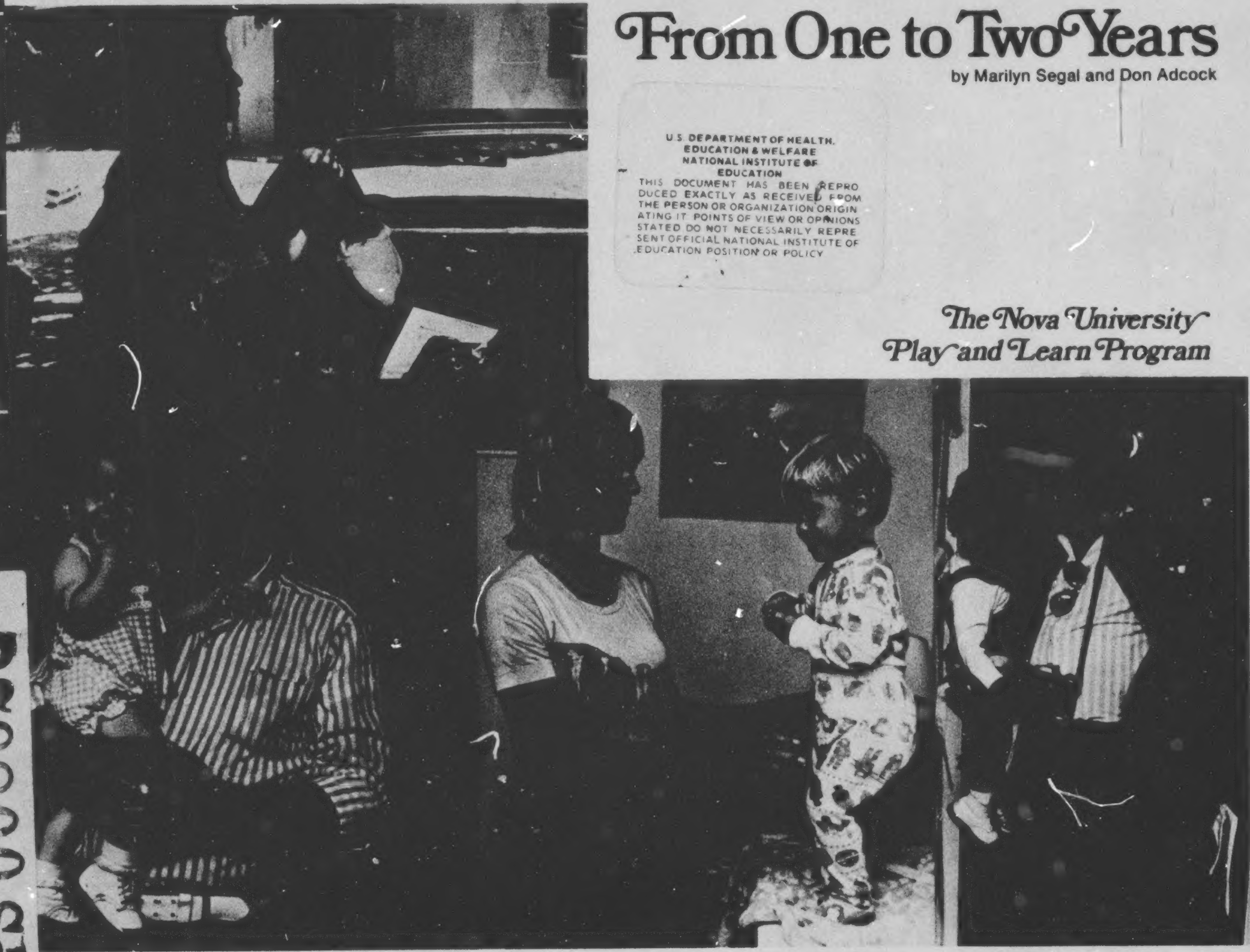
The Nova University
Play and Learn Program



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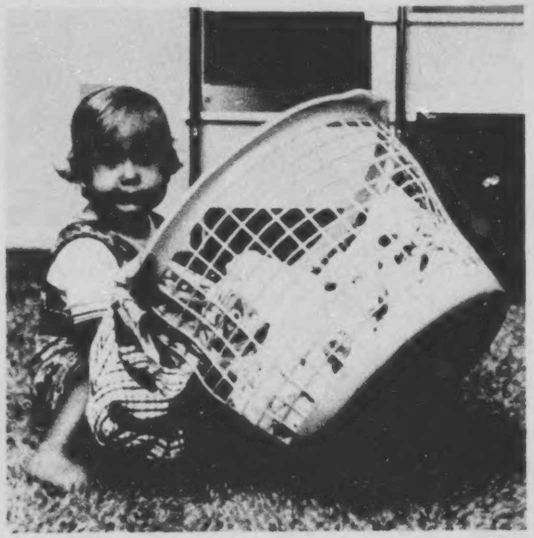

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INTRODUCTION

Baby watching, we discovered as we gathered material for this book, requires time and patience. Because we were interested in observing babies in their normal surroundings, we scheduled a series of visits to 75 families with babies between one and two years old. These families represented a wide range of ethnic and socio-economic groups. The plan was for the team to remain inconspicuous while they carried on their normal daily routine. Soon enough, however, we discovered that the plan had its drawbacks. Babies at this age are not about to let a stranger go unnoticed, and we were treated to a full range of "stranger is here" behaviors. Either the baby climbed on his mother's lap and pouted, or else he gave us an elaborate welcome, showing off his stock of toys and stunts and offering us an occasional bite of a half eaten cookie. Sometimes it took several hours for the baby to get used to our presence.

The major purpose of visiting babies in their home environment was to look for age-related patterns of behavior. We were interested in actions and reactions characteristic of each age level including social interaction patterns, language development, motor development and characteristic ways of playing.

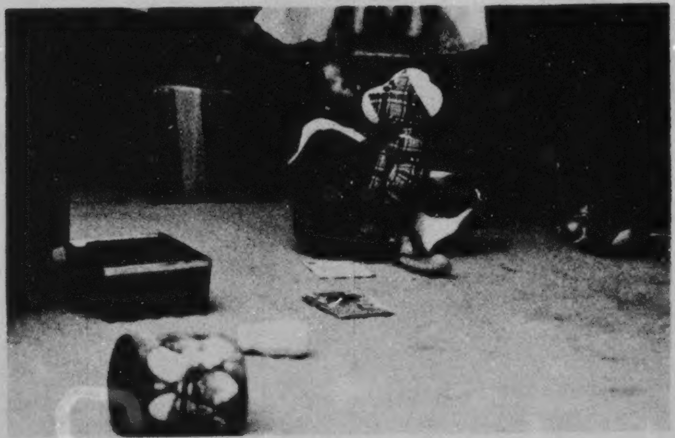
As we visited same age babies from a wide range of families, mothers would describe games and antics that sounded like variations of familiar themes. Babies from quite different backgrounds behaved in ways that were amazingly similar. But even more intriguing than these age-related similarities were the individual differences among the babies we visited. It seemed that each new baby we observed had some special trait or way of behaving that made him a unique personality. No baby that we visited fit into a mold or could be described as a "typical youngster."

As you read through the book you will probably find that some material fits your baby, and some does not. That's as it should be. You, the parent know your baby in a way that is very special and very personal.

It is not our intention to tell you what your baby should be like or what he should be doing. Our intention is to share some delightful experiences with you and to give you some of the insights that are an outgrowth of these experiences.

The book is divided into four parts, 12-15 months, 15-18 months, 18-21 months and 21-24 months. These breakdowns are for convenience only. It may be that your baby is doing some things that we describe as being typical of one age range and some things that are typical of another age range. Each baby has his own time table and his own unique pattern, and only you can be an expert on your baby.

THE 12 TO 15 MONTH OLD



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12–15 MONTHS

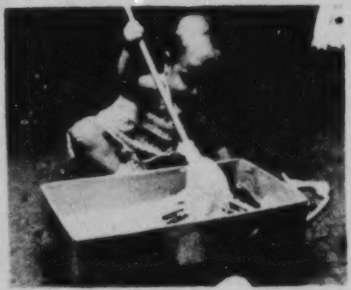
OVERVIEW

With giggles and squeals of delight the one-year-old birthday girl plunges both hands into the icing of her cake. This first birthday is a major milestone for every family. So many changes have taken place within one year that it is hard to remember how tiny and helpless the baby was just twelve months ago. Now, at a year old, their little girl has a personality all her own. She knows what she wants, and how to get it. Never again will she lie passively in her crib waiting to be stimulated. She is now an active adventurer, ready to seek out her own excitement and discover her own capabilities.

While some babies at a year old are not about to risk a first step without holding on, others are walking everywhere with perfect confidence. Early walking doesn't mean that the baby is going to be ahead in other areas of development, however. Neither does it affect the modes of acting that are characteristic of the one-year-old. Walking or crawling, the one-year-old is an explorer and an experimenter. From morning till night he carries on a whole series of investigations. He seems almost driven to find out about everything he touches: what does the ashtray feel like, how does it taste, what will happen when he throws it on the floor, what will happen to his fingers when he rubs them in the ashes.

As we watch the year old child navigate through the house, or carry on his investigation of an ashtray, two things are immediately apparent. First – he is constantly in motion; and second – he is completely absorbed in what he is doing. At twelve months old the baby can be demanding or downright stubborn. He can persist in a game long after the adult is tired out, or he can make a mess of a house in no time flat. But, hard as it is to believe at times, the baby is not trying to be naughty. He messes up things because he wants to learn, and his best way of learning is through experience.

During these investigations and experiments the baby alternates between two different learning strategies. On the one hand he learns a new skill like emptying or throwing and tries it out on everything. For instance, after learning to throw a sock, he will throw a set of keys, a toy car, or perhaps a piece of hamburger. A second learning strategy involves trying out his whole repertoire of acquired skills on a new object. The baby is given a carrot stick – he turns it, shakes it, tastes it, hammers with it, sticks it in his potatoes, and tosses it on the floor.



The burst of energy and experimentation that characterizes the second year of life has its good side and its problem side. On the good side – the baby is a fun companion. He is active, busy, enthusiastic and vital. A new room is a new challenge, and he is always ready to explore. On the problem side an energetic and curious baby requires constant watching. He hasn't learned to recognize danger, and he has no way of knowing that a china figurine is not a good thing to throw.

The active explorations that typify the one-year-old can be looked at in two ways. In one sense every activity helps the baby learn about himself and other people: what things are frightening, what things are fun, how can I get mother to help me, how can I imitate what daddy is doing? In a second sense these same activities help the baby learn about objects and space. What is inside the sewing basket, can I push this big chair, what happens when I tip over my cup? Every new exploration that the baby makes builds up his store of knowledge about both his interpersonal and his physical world.

As the baby goes about his active investigations, he is bound to engage in some activities that are stopped by a "no." The meaning a baby attaches to "no" can have long term significance. If he hears "no" too often, he may think that "no" means "don't try" or "don't find out." In other words he may learn not to learn. Parents of the toddler have a difficult job. They must use "no" to protect the baby and to teach him rules. At the same time they must encourage the baby to learn through exploration.

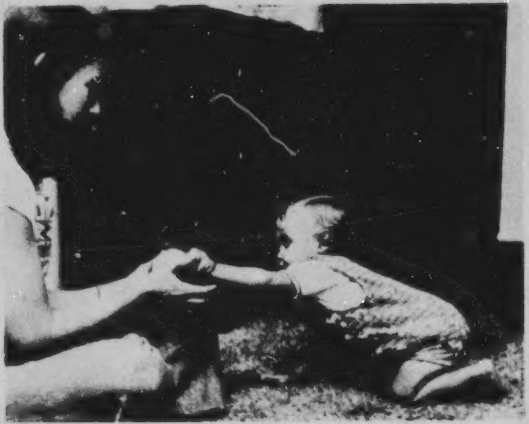
LEARNING ABOUT SELF AND OTHERS

Most babies between twelve and fifteen months old want to keep mother in sight while they are exploring. Mother is the home base where they check back from time to time. The arrival of a stranger sparks a whole sequence of activities such as getting close to mother, clinging to a leg or skirt, and staring attentively at the stranger. Despite this initial wariness, the baby at this stage is a very sociable creature. Once he is convinced that his mother is not going to leave, and the stranger is not going to grab him, he is ready to entertain and to be entertained. The visitor may produce a laugh with a game of "watch my hat fall off my head." For his part the baby may drop a toy in front of the stranger or demonstrate how quickly he can crawl or walk.

No matter how involved the baby becomes with a visitor, part of his attention is always glued to his mother and her movements. As the baby becomes more comfortable with the guest, the distance between mother and baby constantly increases. But frequent returns to his mother convince the baby that he is operating from a base of safety. Even though a baby may seem to be completely involved in a game with a guest, the disappearance of mother from the room can have disastrous consequences.

Although nearly all children at this age are afraid of strangers and of being separated from their parents, in other ways they seem quite fearless. They may wander into the street without worrying about cars or into water that is over their head. Some children are afraid of loud noises such as a clap of thunder, a loud bark, or the motor noise of a vacuum cleaner. Other children are afraid of large animals. Animals, however, can be appealing as well as frightening. Quite often a child is very attached to his pet. The baby's attachment to his parents and his associated fear of strangers can make baby sitting a problem. A baby may show strong resistance to an unfamiliar baby sitter who signals the departure of his parents.

Families choose to solve this baby sitting problem in different ways. Some parents don't go out when their baby is awake, some take their babies along, and some leave the baby with a relative. Other parents familiarize their baby with a baby sitter over an extended period. Even if the baby is left with a



familiar baby sitter, he might still cry when his parents first leave. When the parents wave good-bye in a matter of fact way, and the baby sitter engages the baby in a favorite activity, these crying spells are usually short lived. Given the choice of playing or crying when his parents are away, most babies elect the option of playing. A well meaning baby sitter who hugs a frightened, screaming baby may increase the baby's anxiety. The baby may interpret this holding as restraint rather than comfort.

A baby's attachment to his parents is deepened as he realizes that each of his parents is a separate individual. Many social games develop between parent and child, and games with mother are often different from games with daddy. Mother may sing "Baa-baa, Black Sheep" or ask the baby to point to his nose, while daddy may hold the baby up to the ceiling or play a hand slapping game of "gimme five." Through these social games the baby is learning to appreciate the unique qualities of each of his parents. He demonstrates this appreciation by reacting to each parent in a special way.

A favorite social game at this age is investigating a parent's face. The child especially likes to poke at eyes and mouths. Naturally the child never succeeds in touching his parents' eyes. The eyes always close just before he can touch them. The next best thing is to poke and twist the button eyes on a rag doll or teddy bear. Because of their fascination with parts of the face, babies at this age tend to mutilate their dolls.

Social games are back and forth activities. One of the most common social games at this age involves handing an object back and forth. The baby hands a toy to his mother and holds out his hand for her to pass it back. It is a kind of primitive conversation – I give you something, you give me something, and we'll talk about it. Occasionally a child will exchange objects with other children, but usually this game is reserved for parents and other familiar adults.

One of the most delightful experiences for parents and children is the creation of a very personal social game. Usually these games evolve without any conscious planning. For example, a grandfather pretends to chase a child by running in place. The child thinks this kind of running is funny and imitates it. The grandfather runs in place, the child runs in place, the grandfather runs again, etc. Both laugh and suddenly the two of them share a joke that will be repeated many times in the future.

The baby also plays social games with older sisters and brothers. Peek-a-boo and chase games are common favorites. Sometimes games develop that are unacceptable to parents. A young child may make a mess at the table because an older brother laughs at his antics. A child may keep pulling leaves off a houseplant and laughing as his parents respond with an exasperated "No." In such cases the baby's desire to play a back and forth game must be channeled elsewhere.

The 12 to 15 month old baby who has just learned to walk may enjoy the challenge of tagging along with older brothers and sisters. While he may have difficulty sharing toys with other babies, he usually plays happily with his older siblings. Conflict does arise, however, between the baby's constant exploration and the older child's attempts to build and create. The baby tears up the older child's drawing, removes the puzzle piece he has added, knocks down the garage he has built.

These "destructive" tendencies of the 12 to 15 month old are not aggressive. The baby at this age is not really aware that he can injure another person. He occasionally may pinch or bite or push, but there is little intent to hurt. Often these behaviors are playful. The baby is more aggressive toward objects than people. A toy that frustrates him is likely to be thrown or hit, but a frustrating person just makes him cry.

It is natural for an older sibling to have mixed feelings about the baby. Although he enjoys helping take care of the baby, his hostility may show up in subtle ways. The older sibling may tease the baby while feeding him or give the baby an over-enthusiastic hug.

A common characteristic of the year old baby is a genuine dislike of being restrained. Freedom of movement is very important to him. If parents want to keep a baby away from an appealing but forbidden object, they often can distract the child by showing him another activity. However, holding the child only makes matters worse. The child stiffens his legs, arches his back, and usually succeeds in wriggling free. When it is time to dress the baby, some restraint is usually necessary. Naturally the baby resists each new layer of clothes. Many parents solve the problem by dressing the baby in as few clothes as possible. In many situations the baby is warm enough in a diaper and T-shirt.

Between 12 and 15 months the baby develops a greater ability to express his affection. Much of this is imitative. If the baby's mother tends to express her affection by kissing, the baby begins to nuzzle in return. The father who often wrestles with the baby discovers that the baby likes to hug him.

The baby's ability to imitate all kinds of actions increases during this period. He becomes particularly adept at imitating hand movements. A wave from a familiar adult produces a wave in return, or when adults clap their hands to reward a baby's accomplishment, the baby claps too.

As well as imitating specific gestures of his parents, the baby is beginning to observe and imitate some of the things that his parents do. When eating, the child wants to hold a spoon. The spoon is not used much, but holding it is important. Similarly, the child puts his feet in his parents' shoes, tries to hold a parent's coffee cup or insists on holding the car keys. The child does not assume the adult role in a sophisticated sense, but his attempt to use adult objects is a first step.

By the age of one year babies have a remarkable ability to communicate without words. When angry, a baby will scold, scowl, kick, and flair out arms and legs; when happy he will bounce, laugh, and tumble around; when coy he will tilt his head to the side or drop his chin on his chest. He will tug to indicate that he wants something or push away to indicate the opposite. The younger baby resisted an unwanted spoonful of food by turning his head, or spitting out the bite. The year old will get rid of the spoon with an emphatic shove.

Another non-verbal message that the baby learns to send is "look at this." If the child finds an intriguing object lying around, such as a pincushion, he brings it proudly to his parents. It never occurs to him that his parents will be horrified and grab the object away from him. A 12- to 15-month-old baby does not appreciate his parents' perspective, but he does want to share his own.

Although a child can communicate many feelings without words, his lack of language skills can be very frustrating at times for both parent and child. The baby at this age usually begins to point, which increases his ability to communicate. However, the parent may be unable to tell what object the child is pointing at. Sometimes it is very hard to figure out what the baby wants when he is babbling, pointing, and waving his arms in impatience. The more the baby shows his need to communicate, the more sensitive and understanding the parents must become.

Imitation is an important part of the baby's language at this age. The baby is a master at imitating intonation, as parents discover when they watch the child playing with a telephone. The child's conversation sounds completely authentic, except that the words are not recognizable. Between 12 and 15 months some babies carry on conversations with their parents by imitating intonation. When the parent asks a question, the baby responds with a babble question. A statement from the parent is answered with a matter-of-fact babble, and a command from the parent produces a babble command from the baby.

The baby uses this sensitivity to intonation to interpret the meaning of adult language. Moods are picked up quickly. Many parents report that babies distinguish between different kinds of no's. A matter of fact "no" does not produce the same reaction as a frantic "no," and neither of these is the same as an angry "no." A baby usually respects a "no" that warns of danger, but may challenge or ignore a "no" in other circumstances.

"No" is not the only prohibition word that children understand at this age. Parents use a variety of these words – nasty, yuk, dirty, hot, broken. Because prohibition words typically are spoken in an emphatic tone, the child understands their negative meaning. Often the child sums up all these "bad" words with the expression "oh-oh."

The baby is beginning to understand the names of objects, animals, and people that are important to him. This growing comprehension is linked to situa-

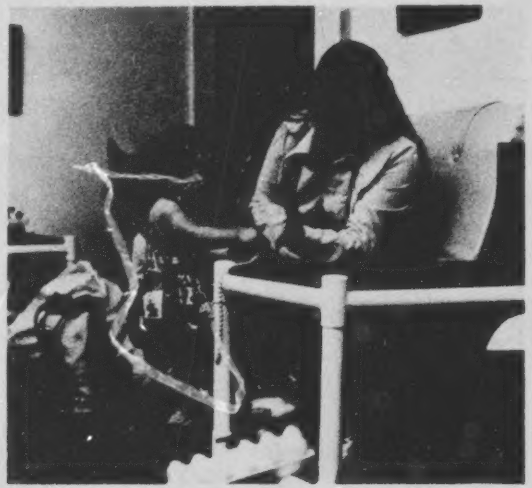
tions in which he interacts with other people. The child starts to understand statements like, "Want another bite?", "I'm going," "Don't touch," Wave bye-bye." By the end of this period of development the range of phrases and names that the child understands is quite extensive.

Recent studies have shown that most adults use a different kind of language with babies. They speak in short, simple sentences. If the baby says a word, the adult repeats back the word, but in the form of a short sentence. This technique, which has been called expansion, probably helps the baby learn to understand common phrases. Most parents recognize that talking baby talk to a baby is not a very good idea. If a baby learns to pronounce a word incorrectly, "itty baby" for instance, it will be more difficult to learn to say "little baby."

A young child's ability to use words appropriately probably lags behind his ability to understand language. When a child hears language, the context can be used to interpret the words. It is much harder to produce words that fit a context. "Da da" is by far the most common first word in a baby's vocabulary. Ordinarily "da da" begins as a babble or nonsense sound that gains its meaning through association. The baby pronounces "da da" in a playful mood, and daddy is called to the scene. Soon the baby learns to associate daddy's arrival with the sound.

For many babies the second word is "ma ma." A baby is apt to babble "ma ma" when tired or hungry, and so a "ma ma" sound in almost every language has come to signify mother. A mother may worry if her child does not say "ma ma," but this does not indicate a weak relationship between mother and child. It simply means that the child babbles with other sounds and has not had the opportunity to have the sound "ma ma" reinforced.

Other words in a baby's early vocabulary reflect those objects that interest him and have names that he can pronounce. Often they begin with a vowel sound or the consonants b, c, d, m, or n. Baby, bye-bye, bottle, ball, no, nana, milk, dog, down, car, eyes, up, and doll are frequent beginning words. When a child learns to say a word, he seeks out opportunities to practice it. If he learns "dog", he is particularly interested in finding dogs so that he can use this new word. Parents can share in the baby's excitement by helping with the search. They can point out dogs that the baby might miss – a dog on television or a picture of a dog in a story book.



Between 12 and 15 months many babies develop a meaningful vocabulary of three to six clear and unmistakable words. Some of these words may be "idiosyncratic", that is they are words that the baby uses in his own way to stand for a person or thing. Although these first words rival baby's first steps as developmental milestones they represent only a small portion of the language development that takes place during these twelve months. Almost day by day the baby learns to understand the meaning of new words and phrases. Furthermore, he is building up a base of experiences which are the source of language development.

As the baby learns to communicate with others, he is becoming increasingly more knowledgeable about himself as a communicator. Throughout the second year of life he will continue to discover more about himself. In ways that are sometimes perfectly charming and at other times provoking, he will assert his independence.

DISCOVERIES AND ACHIEVEMENTS

The year old's zest to explore is aided by his increasing ability to maneuver around the house. The average baby learns to walk between twelve and fifteen months old. Some babies explode into walking – mastering creeping, pulling up, cruising, hand-walking and independent walking in rapid succession. For other babies learning to walk is a much more gradual accomplishment. A long time is spent at pulling up, before a side step is attempted. The pulling up period may be complicated by the baby's

inability to sit back down again. During this awkward period the baby might pull himself up in the crib, scream until he is sat back down, then immediately pull up again. Despite appearances, the baby is not being perverse. He has learned a new skill, and must practice it, and until someone sits him back in his crib he cannot continue his practicing.

The final plunge into independent walking can also be a drawn out affair. The baby walks holding on to two hands, then one hand, then one finger – and then progress comes to a stand still. He goes through what appears to be an interminable period clutching that one adult finger.

Whether independent walking is accomplished at a snail's pace or in a sudden developmental burst, the baby who has just learned to walk demands opportunities to practice. The first walk is a kind of bouncy waddle. With feet spread apart and arms in the air the baby inches forward by rocking from side to side. A quick reversion to creeping may follow an unexpected tumble or the sighting of a favorite toy. In the early stages of walking a baby also resorts to crawling when he needs to get somewhere in a hurry.

Just as soon as the baby has achieved minimum balance, he is ready for a new challenge: walking with something in his hands, walking while carrying is a different skill from the beginning waddle because the baby cannot use his hands for balance. Like any new skill, walking with carrying requires practice and elaboration. The baby will hold something with one hand, and then two hands, something small and then something big, something light and something heavy, something with handles and something that is difficult to get hold of. The very young baby has difficulty anticipating weight, and is apt to drop the heavy item he has attempted to pick up.

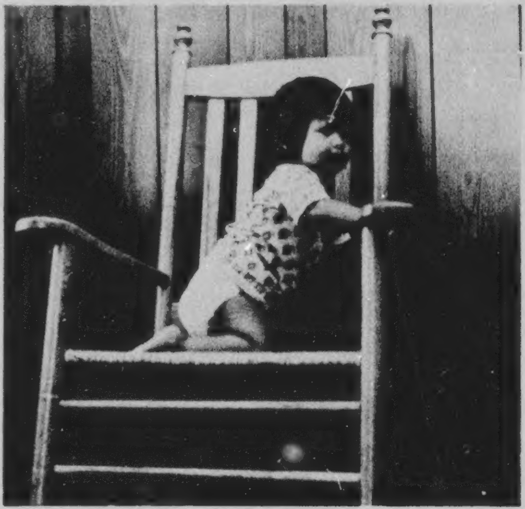
Another favorite early walking activity is pushing along a roll toy. Popper toys are quite popular at this stage as they combine visual excitement with an interesting sound. Once again when the baby has mastered the knack of walking and pushing he enjoys a variety of pushing activities – with cartons, chairs,

carriages, or any large toy on wheels. Pull along toys are harder to manage than push toys because they are harder to watch. When a baby first learns to manage a pull toy he either half walks and half creeps, or walks and stops in spurts so that he can keep track of the toy. When he becomes more sure of his walking, he can walk backwards and watch the toy as he pulls it along.

Whether the baby has mastered walking or not, he probably will be attracted by a flight of stairs. Going downstairs is much more of a challenge than going upstairs. Characteristically parents try to avoid an accident by teaching the baby how to climb down stairs. Most of the time it doesn't work. Parents are the first to confess that their efforts to teach their babies a particular technique were not successful, but that all of a sudden their baby worked out a technique by himself. Usually the baby backs down the stairs, although some babies sit on the stairs and slide from one step to the next.

Sitting in a chair is another special skill that some babies take a while to learn. When babies first attempt to get in a chair, regardless of its size, they fall into it or climb onto it and finally turn around. Backing up into a chair and sitting down directly requires coordination and awareness of position in space. That's why it is so much easier for a baby to get himself into a big overstuffed chair than into a child size rocker. Generally speaking, some babies at a year are climbers, others are not. Climbing is not related to walking. A baby can learn to get from floor to chair, and from chair to table before he can stand alone. Conversely, a baby may show no interest in climbing until he has mastered his walking.

A first task for the walking baby may be to relearn some of the skills he had mastered as a creeper – pushing open a door, getting underneath a table or finding his way around the house. After all, the walking baby sees things from a whole new perspective. A second task for the walking baby is to gather new information about the things around him. As soon as the baby becomes really confident about himself as a walker, he can use his walking skills to expand the scope of his explorations.



During the first year of life the baby learned about his immediate world by listening, looking, feeling, tasting and manipulating. He learned to shake, bang, rattle, grasp, drop, rub and twist. Jean Piaget, a Swiss psychologist, calls these ways of knowing, "schemes." As a child gets older, he uses his "schemes" in a more deliberate way in order to find out more about his physical world.

Confronted with a new object, a shoe box, for example, the 12 to 15 month old carries out a series of experiments. He bangs on it, turns it over, tastes it, explores it visually, shakes it, and throws it down. During these preliminary investigations, he discovers that the box has a top that can come off. He centers his attention on the task of taking off the top, and then examines the contents. He pulls out each piece of tissue paper, crushes it, tears it, and tosses it over his shoulder. Then he picks up his new shoes, bangs them against each other, manipulates one shoe, rotates it carefully and drops it. In a few months he might be interested in stuffing the shoe box with new toys, but at this age most babies are preoccupied with emptying, undoing, banging together and pulling apart.

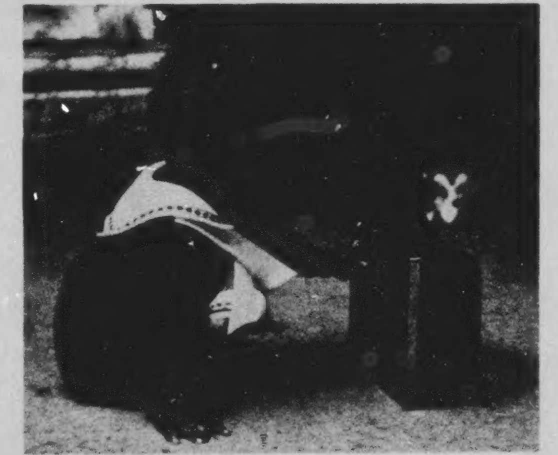
Emptying containers is probably the most useful scheme that the year-old baby possesses. As the baby empties things he learns the relationship between the container and what is inside. At the same time he makes all kinds of interesting discoveries about the things that he pulls out. Most babies will empty just about anything they can get to – dresser drawers, kitchen cabinets, dishwashers, trash cans, a cup of milk, the gold-fish food, hampers, bookshelves, tool chests, purses, ashtrays, sewing baskets. Once a baby discovers the fun of emptying something, he makes a routine out of it. Mothers tell us over and over again that just as soon as they put the pots back in the cupboard, or the books back on the shelf, their babies are at them again.

Obviously, the baby's interest in emptying things can get to be a nuisance, and most families have to find a way to keep it within bounds. The most common solution is to give the baby certain things that he is allowed to empty – a drawer, a cabinet, a wastebasket, a purse, or perhaps a bookshelf. Things that shouldn't be emptied are put off limits or at least temporarily out of reach. The good silver is placed in a top drawer, the desk drawer is locked, and the tool box is stored in a closet. A second way to handle the baby's emptying game is to give him a variety of containers to empty. One family that we visited kept the baby's toys in a set of small baskets. By reintroducing old toys or by adding an occasional kitchen item, the parents made these containers particularly exciting to empty.

Some babies begin to combine emptying things and transporting things. Often the baby picks out a favorite spot to store the things he collects. This spot may be behind the sofa, on the coffee table, in the garbage can or the toilet bowl. For example, the baby may be found concentrating hard at removing all the tissues from the tissue box in order to stuff them one at a time into the toilet bowl.

In the process of emptying everything around him the baby comes across water. He finds it is a very versatile toy. You can drink it, spill it, pour it, swish it, or make it disappear. You can capture it in a container, and let it spill out again, and most fun of all you can stick your fingers in it and make a splashing sound. Once a baby has discovered the fun of splashing, he is apt to find water everywhere – in the bath tub, the toilet bowl, the gold-fish tank, the dog's dish, the soup bowl, or an outside puddle.

Another common scheme between 12 and 15 months is twisting knobs. The baby is attracted to circles of all kinds – the lense on a camera, the knobs on the stereo and television, the wheels on a toy car. He trys to manipulate any dial that he finds. The rotation of a circle seems to fascinate a baby, and in his home many of these circular knobs control electrical appliances. The baby gets a tremendously exciting effect when he activates the dishwasher or the radio.



The baby's attraction to knobs and buttons is paralleled by an equally strong attraction to anything that has a "movable" part. For the year old baby there seems to be an unwritten law – if it moves, move it – whether it's the handle of a purse, the door to the oven, the toilet flusher, or the ashtray on the car door.

Almost all babies pull off glasses, twist watch bands, or tug at a string of beads. In the process of tugging at things to see if they will come loose, the baby is apt to discover that pages come out of books. This can start the baby off on a tearing spree that can be disastrous to a book collection or an older sibling's homework.

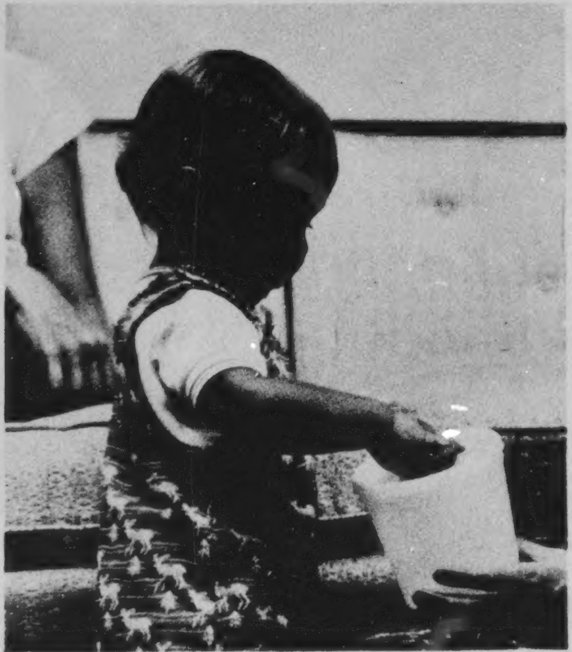
An old scheme that continues to be useful to the baby is visual inspection. As the baby twists, turns, and fingers an interesting object he inspects it very carefully with his eyes. He may also be intrigued at this age with looking out of the window. Many babies will stand on the chair or the sofa, press their face against a picture window and just watch.

The baby's interest in visual inspection extends from scanning large spaces, like the out of doors, to looking at very little objects. He notices a tiny thread on the carpet or retrieves a single pea from the corner of his high chair. He may be particularly interested in looking inside a box or wastebasket and will get himself in rather comical positions.

As the baby goes about the business of pulling things apart and emptying containers he begins to do some primitive planning. He recognizes that he wants to get the silverware out of the drawer, the apple core out of the waste basket, or the flower arrangement off the table. Each of these objectives takes a different kind of motor planning. The drawer must be pulled open before he can get to the silverware. He must pull himself up to the table before he can get to the flowers, or he must tip over the waste basket before he can reach the apple. Moving from one disaster area to the next, the parent may find it hard to appreciate how much the baby is learning through these active explorations.

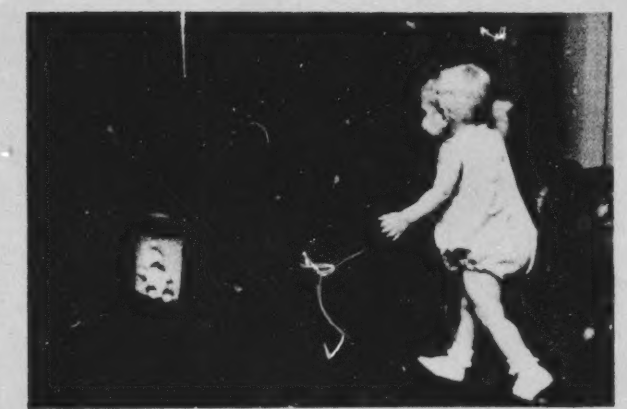
PROBLEM SOLVING

Make your child a milk carton boat.



Drop-in game – Make a hole in the lid of an ice cream container big enough for a rubber ball. Your baby will enjoy hearing the ball drop in and working to get it out.

Try holding your baby's doll upside down. What is her reaction?



Put a toy on one end of the sofa. Let your child retrieve it.

Let your baby play with a box with a top. He will enjoy the challenge of taking it off and putting it back on.

Put pillows or bean bag chairs in the corner of the room to give your baby some climbing experiences.

PROBLEM SOLVING

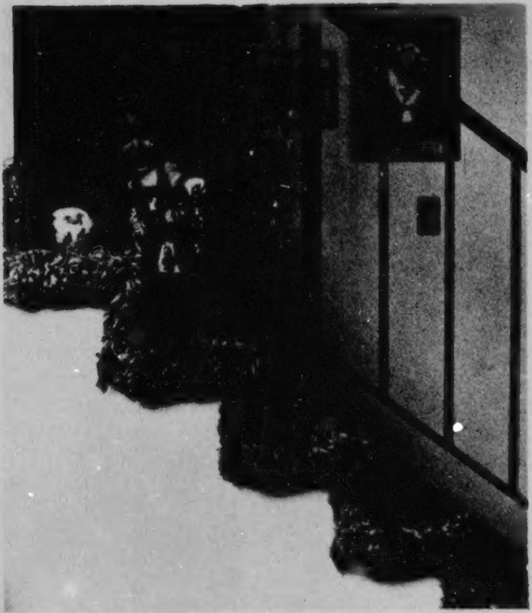
When your baby has both hands full give him a third object. Watch to see how he solves the problem of having only two hands.

A box and a paper towel roll make a fine puzzle toy.

Tie a rope to a soft doll or stuffed animal. Your baby will enjoy watching it swing and trying to catch it.

String up a beach ball for your baby to swing at. (Plastic holders from six-packs or net beach bags can be used to hold the ball.)

Put a toy in the bottom of a deep container. Getting it out creates an interesting challenge.

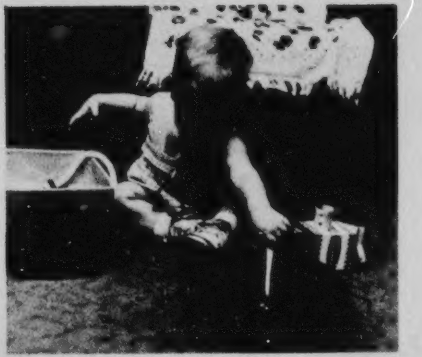


Throwing a ball or a soft toy from the top of a staircase can be a fun activity.

Show your baby how to fit clothespins around the edge of a container.

Let your child turn the lights on and off.

Filling a container can be a complicated task.

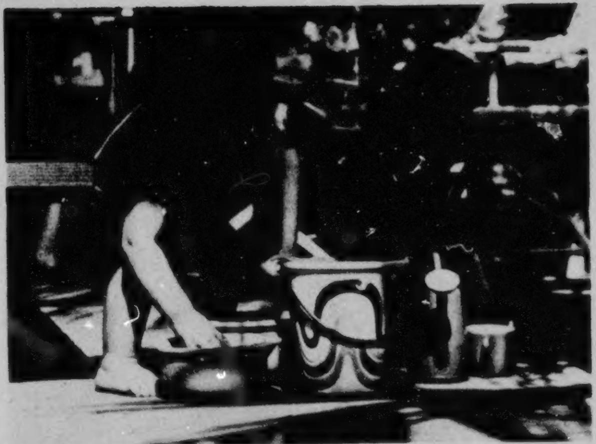


Teach your baby how to use a spoon to clang the side of a pan.

Tie a ribbon to a favorite toy and hide it. Your baby will learn to find the toy by pulling or following the string.

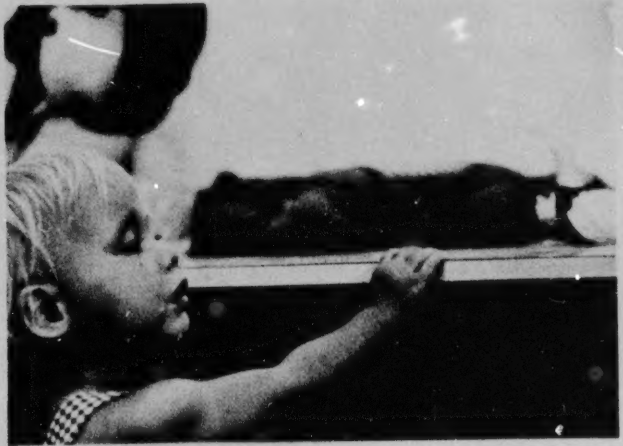
PROBLEM SOLVING

Babies enjoy trying to fit several objects into one hand.

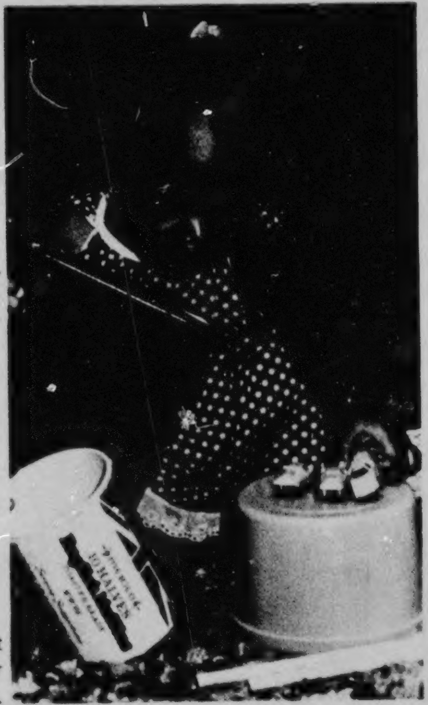


Water play is most exciting when the baby has a variety of containers to empty and fill.

A step stool makes a good climbing toy.



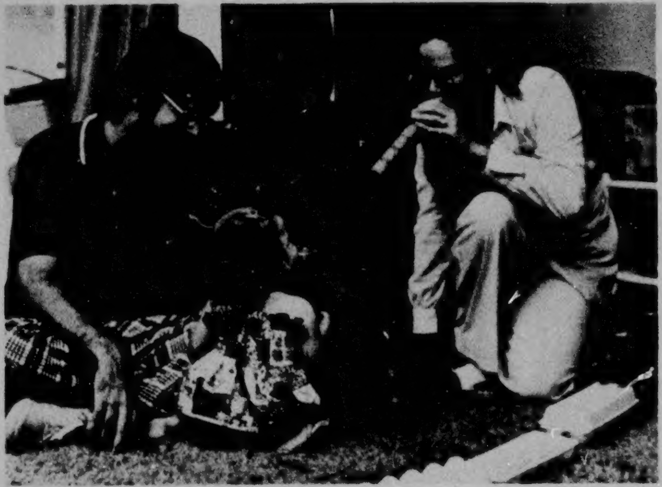
Put a favorite toy on a shelf just high enough for the baby to reach up and get it.



Turn a container over, and let your baby line up his cars or small toys on the top.

Show your baby his own picture.

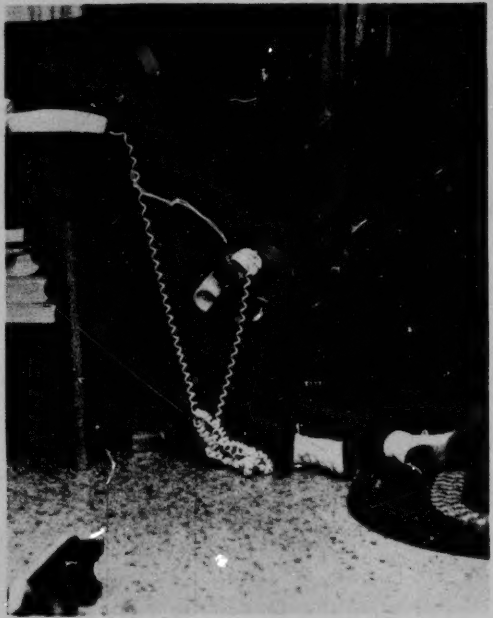
Babies enjoy imitating a drum beat.



Talk through a tube. Your baby will enjoy hearing how your voice sounds.

A game of peek-a-boo is fun at any age.

As your baby looks at a picture talk about the things he sees and relate them to things the baby knows. This mother is reading the rhyme "This little piggy goes to market."



Let your baby have a turn talking on the real telephone.

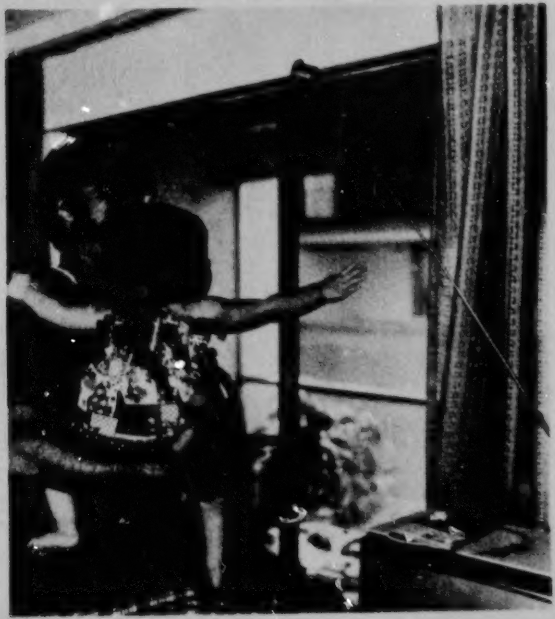
A pie plate with bells makes a good rhythm toy. (Use very large bells, and attach with strong cord or elastic.)

A butter cup container with a little yarn to decorate it makes a fine hat.

Cleaning up can be fun.

A sock doll is an easy toy to make.

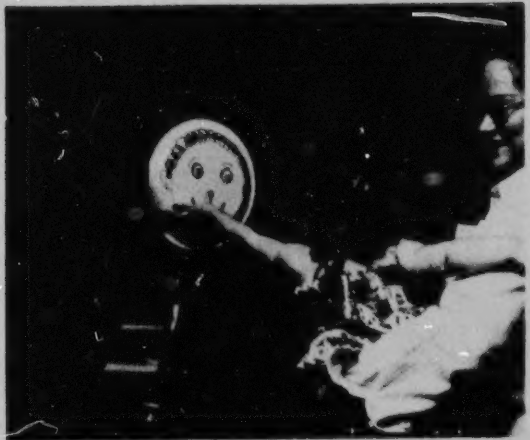
A simple game like putting a hat on a doll's head can hold your baby's interest.



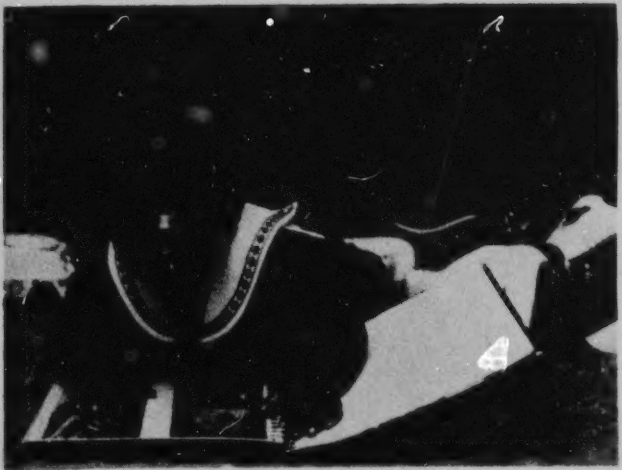
Lift your baby up and let her touch things that are up high and normally out of her reach.

Give your baby different opportunities to use a new word, e.g., "Say, eye".

Put your watch to the baby's ear.
See if he will imitate a ticking sound.



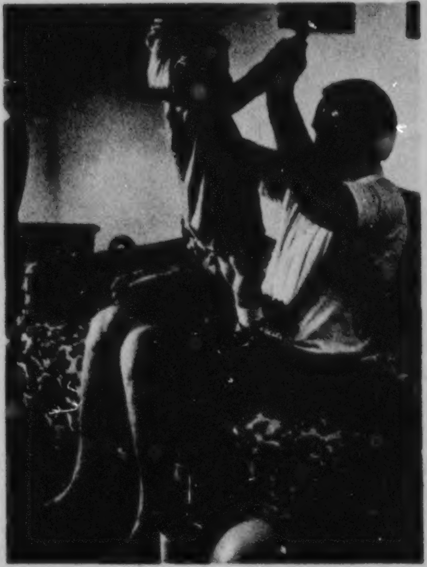
Draw a picture of a face on a paper plate. Cover an eye or a nose. Give your baby a turn.



Your baby will enjoy a turn looking at the family album.

Talk on a toy telephone. Put the telephone down and see if your baby takes a turn.

Babies love jingles with actions that go along with the words. Rock-a-bye baby — pop goes the weasel — and "how big is the baby?" — are old favorites.



THE 15 TO 18 MONTH OLD

25

15–18 MONTHS

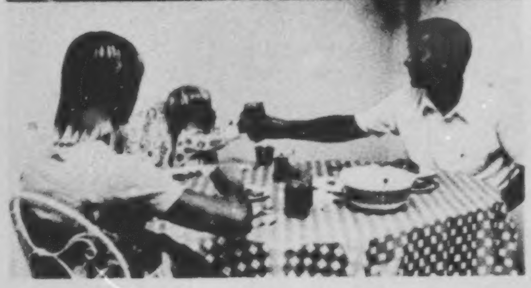
OVERVIEW

By fifteen months old most babies have learned to walk and are using their walking skills to accomplish other goals. The baby walks to get to the things he wants or to get away from places where he doesn't want to be. At the same time he has learned different ways of walking. He can trot for a short distance in a game of chase or dawdle along when his mother calls him to breakfast.

Parents often remark that when their babies gain control of walking they seem to grow up all of a sudden. In part, of course, this is because a baby looks older when he's walking than when he's creeping or just learning to walk. But it's also due to the baby's change in perspective. Clearly now the baby sees himself as being like his parents and he tries to confirm this perception by doing grown up things.

Many of the demands of the fifteen- to eighteen-month-old baby stem from this desire to be like a grown up. He wants to drive the car, talk on the telephone, push the vacuum cleaner, or run the lawn mower. These demands for adult privileges are most insistent at meal time. The baby sees his parents and siblings sitting in chairs around the kitchen table. He wants to get out of his high chair, and sit at the table, too. He insists on feeding himself jello with a spoon, or holding his mother's cup of hot coffee, or eating a piece of steak that is on his father's plate. Although the persistent demands of the baby can create a problem, they are certainly a healthy sign. The baby sees himself as being like a grown up and entitled to grown up privileges.

This emerging awareness of himself as a person is apparent in much of the baby's play activity. Although he continues to explore his immediate surroundings he is becoming more selective about the things he gets into. The articles or tools that his siblings or parents use take on special value. He tries to get hold of such things as wallets, keys, screwdrivers, lipsticks, pens, matches, telephones, records, magazines, and razors. He is constantly alert, watching how adults use things, and waiting for a turn to try. Whereas the year old tried out all his manipulative schemes on every object he found, the fifteen to eighteen month old child is especially interested in imitating the way adults use an object.



As the baby expands his field of exploration and becomes more interested in copying adult activities, the question of limits comes up. Each family is faced with a series of decisions to make. What sorts of things will they allow the baby to do, and what sorts of things will they stop? How will they keep the baby from getting into things that he can destroy or things that might be dangerous? Should they put everything out of the baby's reach, watch the baby at all times, or try to teach the baby what he can play with and what he cannot? Ordinarily parents will decide to keep things that are dangerous or very valuable out of the baby's reach. At the same time they will leave some things within reach that they don't want the baby to get into. In this way the baby can have opportunities to learn the meaning of "no" without the risk of an accident.

Although the exploration of objects and their uses occupies a major portion of the baby's working hours, it is only one aspect of his exploratory behavior. A second area of exploration is social. The baby is becoming more and more interested in exploring the effects he can have on other people. Can he make people react to crying or yelling? Can he get people to pay attention to him by shouting, showing off, or imitating their gestures? Can he make people react in an interesting way by pinching, poking, yelling or hugging? Can he make people do the things he wants by pulling, hitting, whining, crying or smiling?

A baby whose parents set up consistent and reasonable limits learns several things through his explorations. He learns that he does have the power to effect other people, but that this power is not without limits. He can get his father to let him taste his dinner, but he cannot get him to give up his whole dinner. He can play and kick and fuss for a while during a diaper change, but if he acts up for too long, his parents will hold him down firmly and the diaper will be put on.

The baby is also learning that certain techniques for affecting people work better than others. He may learn that he gets things faster when he cries than when he hits, or that people pay more attention when he laughs than when he screams. Some babies learn that different people react in different ways – crying may produce a desired outcome with a grandfather but not with a father. Hitting may bring a laugh from Daddy but make Mother very angry. It is much easier for the baby to learn effective social techniques when parents can agree on what the limits are.

At the same time that the baby explores his power to effect other people, he exerts himself to the limits of his own power and ability. He pushes and pulls, lugs and carries, opens and shuts, climbs up and slides down in a constant effort to find out just what he can do. Eventually he reaches the limits of his endurance, but he is too keyed up to agree to a nap or to go quietly off to bed. The end result often is a temper tantrum or a burst of uncontrollable tears. Some babies fall asleep after a few seconds of crying. Others need help in settling down before they can fall asleep. Again, each family finds its own way of helping their baby handle his exhaustion. Relaxed pacing during the day, and establishing a workable routine help prevent this build up of tension.

While the baby at this age presents his family with many new challenges, he is also an entertaining companion. A delightful aspect of his self-awareness is his growing sense of humor. He realizes that he can become the center of attention, and he enjoys the role. He dances to music now, not just because he can, but because he enjoys the applause. After a performance he looks around the room to see the effect he has created. Once he has captured the attention of his audience, he performs his entire repertoire. This repertoire may consist of a bouncing

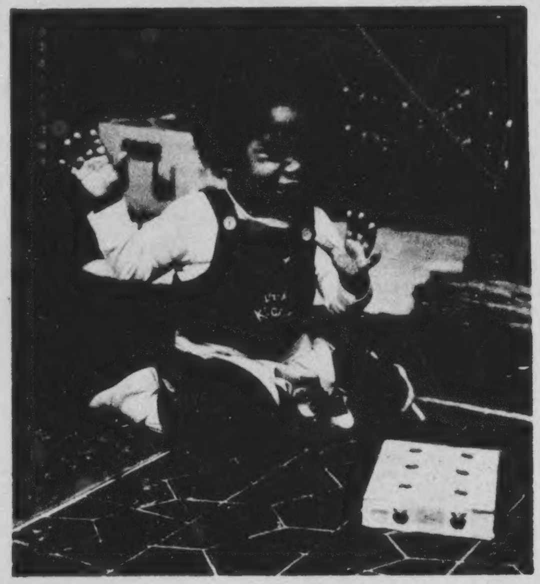
up and down dance step, a tilt of the head, a half way summersault, swinging arms, turning around in a circle or perhaps crawling on the floor. This reversion to crawling as a joke shows the baby's awareness that he is really too big to crawl. In other words, the baby makes a distinction between the baby he was, and the child he is now.

Living with a fifteen to eighteen month old baby is never a dull experience. For some parents it is a favorite age. They enjoy the opportunity of interacting with their baby in new and different ways, and are fascinated by their baby's new discoveries and his growing sense of humor. Other parents find that the baby's constant activity, and obstinant testing of limits makes him hard to cope with. In large part, parents' reactions to the baby at this age are influenced by their baby's own temperament. A quiet and placid baby, a baby who accepts limits without a struggle, is easier to manage than an active and determined baby who is constantly testing limits.

LEARNING ABOUT SELF AND OTHERS

Between 15 and 18 months a baby develops a personal relationship with a wider circle of people. Although mother and father are still the most important people in his life, he associates special games and activities with other relatives and family friends. Perhaps he likes to climb on his grandfather's lap and retrieve a pipe from his inside vest pocket. Or maybe he encourages his aunt to sing to him by calling her "la la."

The baby also is less afraid of strangers. It is common for babies at this age to hand a toy to a stranger. Sometimes the child extends the toy and then decides not to give it to the stranger after all. At the other extreme an 18-month-old child may bury a friendly visitor with favorite books, trucks, and stuffed animals. This is one way for the child to invite the stranger to talk with him. A less direct way to attract a stranger's attention is to scatter toys around the room. The child may not be bold enough to ask the guest to admire his toys, but he can communicate the same kind of message by scattering.



As in all areas of development, the baby's progress in social relationships is not smooth and steady. After a period of sickness or an upsetting separation, a baby is likely to become more attached to his parents and less willing to interact with other people. The child is not able to understand the reasons for separation or sickness, and therefore interprets it as a kind of punishment. He becomes more dependent on his parents because he is afraid of losing their support. At the same time he becomes angry at being punished. Parents are often surprised by this combination. The child is whiny and clings to them, but he also is aggressive and tries to hit them. Their confusion is even greater when they have been especially nice to the child during a recent illness. However, parents must remember that a child may be blaming them for circumstances over which they had no control.

The baby who becomes more dependent on his mother may reject another relative's attempts to take care of him. The baby may develop a preference for males or for females. It is disturbing to parents when a baby becomes less friendly toward well meaning adults. It also is disturbing to relatives when a baby seems to reject them. Usually, however, these periods of withdrawal by the baby are only temporary. Once the baby regains his sense of security, he will be receptive again to relatives and family friends. The important thing is to accept the baby's feelings as gracefully as possible. The baby will be impolite at times, but at this age he is not able to understand the idea of courtesy.

As the baby becomes more aware of himself, he naturally learns to express his feelings more forcefully. Most babies learn how to use "no" between 15 and 18 months, although they have understood the meaning of "no-no" for many months. When the baby has mastered "no" he can use it in the way that he has heard it used. He sees the cat on the dining table and chases it off yelling "no-no." He may even touch an electric cord and say "no, no" to himself. This imitative use of "no" is easy for parents to accept. Eventually, however, the child begins to use "no" to defy his parents' requests.

Usually this process is gradual. Between 15 and 18 months the child says "no" in specific situations that arouse strong feelings. He doesn't want to leave a park, he doesn't want to eat his egg. Later in his development the baby will experiment with "no," saying it automatically to every request in order to see what will happen.

Most parents realize that the baby's ability to use "no" is a healthy sign. After all, "no" is one of the most useful words in any language. Any of us would be severely handicapped if we were not allowed to use such a word. On the other hand, parents are faced with a difficult situation. The baby is not old enough to understand the reasons behind a request, but he is old enough to reject it.

There is no simple solution to this problem. However, there are two rules of thumb that make sense. First, parents can limit their requests to those that are most important. If a child cannot understand the reason for most requests, one way to ease the situation is to make fewer requests. There still will be many requests, dozens of them each day. But dozens each day are preferable to hundreds.

Second, parents can help channel unacceptable activities into acceptable alternatives. Most parents disapprove when a child picks the leaves off houseplants, throws breakable dishes, or pours milk on the rug. Yet activities like these are acceptable in certain circumstances. Parents encourage children to pick dandelions on the lawn, they show children how to throw balls or to pour water in the bath tub. It all depends on the circumstances.

Although a child between 15 and 18 months cannot understand the reasons behind his parents' rules, he can learn to distinguish between different circumstances. He can learn that picking dandelions and weeds is different from picking leaves off houseplants. He can learn when tearing, throwing, or pouring is allowed and when it is not. Of course, these rules are not easy to learn, nor easy to teach either. It takes a lot of time and effort to redirect a child's urge to explore into appropriate activities. For example, it is not easy to think of an acceptable activity that can take the place of playing with electrical outlets. Perhaps the child can be interested in other poking activities, such as putting keys in keyholes or shapes into a sorting box, or the child can be interested in electrical switches instead of outlets.

In some cases no idea will work. The child insists on playing with the outlets, despite the fact that alternative activities have been encouraged and he has been spanked for playing with the outlets. In such a case the child's ability to say "no" has resulted in a serious confrontation between parent and child. Although this kind of confrontation occurs in every family, the parents' goal should be to avoid creating one whenever possible. Once the confrontation develops, no winners emerge. Either the child, the parent, or both lose some of their self dignity.

The child's ability to say "no" is often expressed in regard to eating and sleeping. The baby who always has gone to bed without a fuss may refuse to go to bed. Bedtime can become a nightmare for the whole family as the parents try out different techniques for getting the baby to sleep. Some families feel comfortable using very supportive techniques – like rocking the baby to sleep, putting him in their own bed, reading him stories, leaving a bottle in the crib, letting him fall asleep in the living room. Other families feel more comfortable if they do not establish a pattern that could be difficult to break. They let the baby cry himself to sleep. It is important to remember that the baby's bedtime revolution stems from his desire to control his own fate. Why should he have to go to sleep when his parents tell him, why should he have to sleep alone? Each family decides for itself what kind of compromise can be struck between the feelings of the parents and the child.

Eating problems are easier to solve than sleeping problems. Once the parents are convinced that most babies have a drop in appetite during the middle of the second year, it is easier for them to accept the baby's rejection of food. It is more difficult to accept the fact that babies do not have good table manners. Fingering food, smearing, poking, squeezing, dribbling are interesting activities, and now that the baby is less hungry, he'd rather play than eat.

In many families the dinner hour is the best opportunity for the baby to see his father. Shortly after dinner the baby may go to bed and not see his father until dinner the next day. The baby's need for attention from his father may conflict with the normal dinner routine. A baby between 15 and 18 months has learned that he can get attention by being mischievous. In some cases a baby may drop food or pour milk in order to get his father's attention. In other cases he may expect his father to feed him or he may want food from his father's plate. If the baby is removed from the high chair, he may start some kind of disruptive activity so that his father will stop talking to his mother and pay attention to him.

Once again, each family finds a different solution. Some families allow the child to play with his food and stay at the table. Other families feed the baby first and eat dinner later. Sometimes the father takes an active role in feeding the child or allows a child to stay up later so that he can see his father after dinner.

The baby's ability to say "no" seems very negative in one sense. In another sense it is a sign of trust. The typical 15 to 18 month old who is learning to defy his parents is quite docile around other adults, even familier ones. The baby does not say "no" very often when other adults ask him to do something. During this age he may begin to hit his parents in anger, but he does not hit other adults. In other words, the baby is negative toward people he trusts. He is not afraid to say "no" or to hit his parents because he trusts that they will not hurt him. Only later will he gain enough confidence to defy and strike out at other adults.

The ability to say "no" is part of a larger pattern in which the baby learns to express his feelings with words. Many babies between 15 and 18 months learn to say "more" or "gin" (again). This kind of word can be used to get more food or to have an interesting activity repeated. Often babies say "da," "see," or "hear," which allows them to call an adult's attention to an interesting sight or sound. The child is able to express the feeling – "there goes something that excites me."

The baby continues to add the names of objects to his speaking vocabulary. His ability to imitate words becomes more precise. Children vary widely in their language development, and girls generally develop earlier than boys. Usually, however, the explosion of new words that characterizes language development does not occur until 18 months or later.

Parents sometimes are concerned when a new word is dropped and seemingly forgotten after several weeks of use. It is believed that a child's vocabulary is very unstable at this age because word meanings are not fixed. The child seems to change the meaning of a word from one situation to another. Whether or not this is the reason, it is normal for children to drop words they previously have learned.

Parents also are surprised by how long it takes most children to combine familiar words into a sentence or phrase. It is not unusual for a child to have a hundred word vocabulary before combining two words at one time. There is no clear explanation for this fact. Apparently a great deal of organization must take place in the child's mind before he can link two familiar words together.

Some children learn whole phrases between 15 and 18 months of age. Through imitation a child may learn to say something like "catch the ball," or "pick me up." These phrases involve more than one word, but they are fixed. The child cannot change the phrases or use the words in other phrases. Each phrase is like one big word.

There is some evidence that children develop language by expanding either their single word vocabulary or their phrase vocabulary. Children who use language to express needs and desires are thought to speak in phrases. Children who use language to comment on objects around them may use more single words.

Between 15 and 18 months a baby learns that other people have distinct names. He may begin to call the members of his family and the family pets by name. A favorite activity is looking through a photograph album and picking out familiar faces. The baby may recognize his own picture, and it is likely that he will begin to notice baby pictures on food boxes.

Part of the child's increased self awareness is a new appreciation of his body. He pokes his fingers in his nose and mouth, investigates his ears, his toes, his hair. He may develop the habit of rubbing his genitals. During this period babies often demonstrate that they see a connection between their own bodies and those of other people. The baby may touch his father's nose and then touch his own, or he may point to his mother's navel and then to his own. As the child discovers more parts of his own body, he is excited to find that there is a corresponding part on other people's bodies.

The typical 15 to 18 month old carries the connection between himself and other people one step further. He tries to do the things that other people do. The child at this age is determined to participate in any adult activity that seems important. When his father gets out his tools, the baby immediately picks up a hammer or screwdriver and pokes and taps on whatever is being fixed. He is likely to insist on trying the vacuum cleaner, the scissors, the pens, the typewriter. Some machines frighten him but in most cases the child is more than willing to operate machines like the sewing machine or the hair dryer. If given the slightest encouragement, the child will stand at the sink and "wash" dishes or try to cook on the stove.

The child's desire to imitate any adult activity can be as much of a nuisance as his constant exploration. It is difficult, and even dangerous, for the child to be underfoot all the time. Sometimes the child is willing to imitate an older brother or sister, which takes the pressure off the parents. In other cases the child, under supervision, can be allowed to participate. It is not too inconvenient to let a child scribble on a blank checkbook while the parent writes in the real checkbook. A child can rinse the non-breakable pans while the parent washes the dishes.

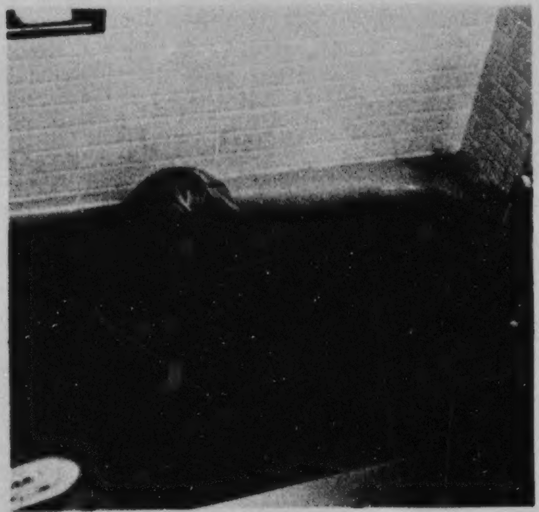
To some extent a child's desire to participate can be directed into imaginative play. The child who is not allowed to use the real telephone can talk on a toy telephone. The child who cannot really help take care of a baby sister can wash and feed a doll. At this age the child's play with dolls, toy cars, and telephones is largely imitative. There is not much imagination involved, but the child still may feel that he is participating in an adult activity.

Just as it was important to nurture a child's exploratory instincts at an earlier age, it is important at this age to support his attempts to be recognized as a full-fledged human being. Often the child's desire to participate can be used to counteract undesirable exploration. A child who insists on pulling leaves off plants can help with the adult activity of watering the plants. The child who keeps emptying the kitchen drawers and cupboards can help put groceries, clean dishes, and silverware back into these same drawers and cupboards.

Between 15 and 18 months the child's ability to manipulate other people becomes quite apparent. It is easy to emphasize the negative side of this behavior. The first real tantrums appear when the child learns to use tears to get his own way. Of course, the child is just starting, and he will keep refining these techniques into adulthood.

However, there also is much joy and humor in the child's manipulative efforts. During this age the child learns to tease. A favorite game is running away from mother or father in hopes of being chased. The baby runs off when his parents are trying to dress him; he runs behind counters in the department store. All the while the baby laughs and crows in delight. The child learns to show off. He often takes center stage and makes a deliberate attempt to play for the gallery – clapping, giggling, swaggering.

Showing off has negative overtones for adults, but the show off behavior of an 18 month old baby is universally loved. The baby is so alive, trying with all



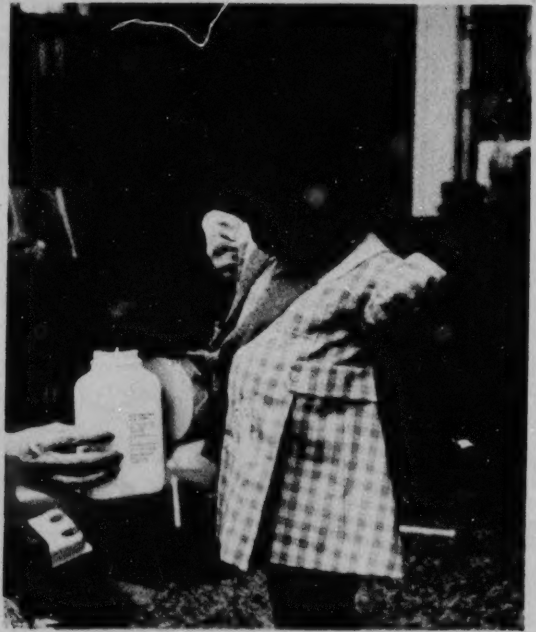
his might to be a person. And there is genuine communication between the child and admiring parents. They share a feeling of excitement and good humor. For the moment everyone is on the same wave length and it is a wonderful experience.

DISCOVERIES AND ACHIEVEMENTS

Fifteen to eighteen months in some ways is a period of consolidation. The baby is consolidating his walking skills, and using this skill to increase his understanding of the physical layout of his world. He's still apt to walk with legs apart and arms held up, but his balance is definitely better. A remarkable ability that babies have at this age is the ability to squat down on the floor, play with whatever is there, and pop right up again.

A baby's joy with emptying things continues through the eighteenth month. However, instead of being the baby's major scheme, emptying is only one of several schemes that he uses as he explores. Sometime during this three month period, the emptying scheme is paralleled by a filling up scheme. The baby becomes just as intrigued with putting things inside other things as he once was in emptying out. At this point a wastepaper basket takes on special value. As a matter of fact the baby may come to realize that every house has a wastepaper basket, and it may be the first thing he searches for in checking out a new house. When a baby becomes interested in wastebaskets, checking the trash before dumping is a good idea. The baby's idea of what should be put in the wastebasket might not coincide with the ideas of other family members.

The baby's interest in putting things inside other things is not limited to wastebaskets. He may want to stuff his shoes with orange peels, his crib with stuffed animals or his mouth with crackers.



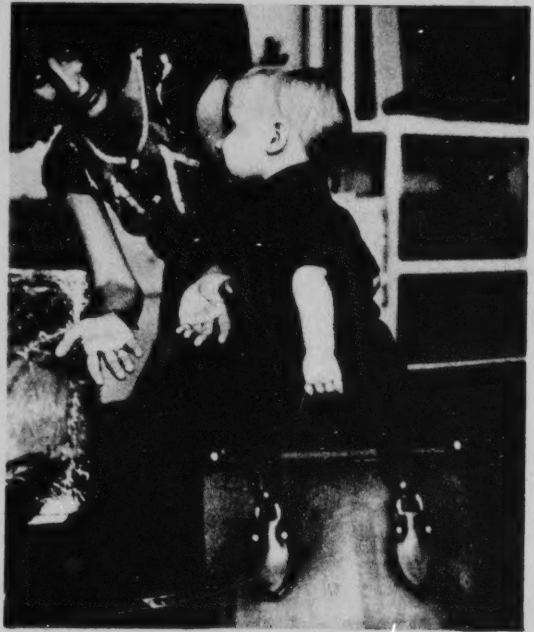
The baby is constantly trying to fit things inside other things – though he may not have a clear idea of what can fit into what. He struggles to get a large hair roller inside a smaller one, or a bar of soap down the bathtub drain. He is intrigued with the idea of sticking a screwdriver into an electric outlet, poking his finger into his ear, or poking a stick inside the grill of a radiator. He may attempt to put a key in a key-hole, or a peg in a peg board but has difficulty finding the right angle. He also has problems with any kind of task like screwing a lid on a bottle or turning a key in a mechanical car where one hand does the holding while other hand manipulates.

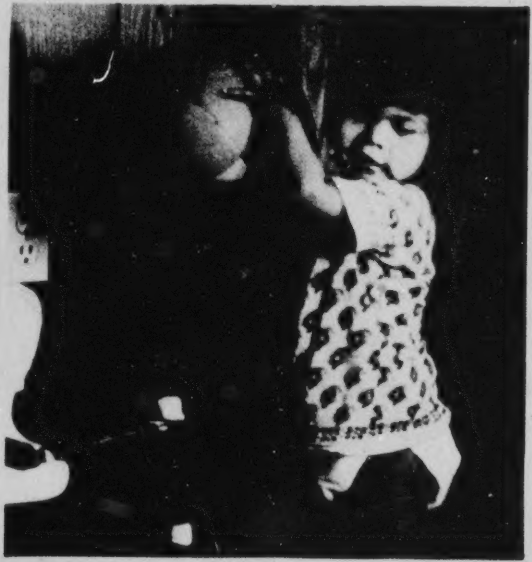
Many babies at this age will choose a particular place in the house to fill up with stuff. They methodically transport all loose items that they find around the house to this particular spot, so that parents know just where to look for their misplaced wallet, or the key to the family car.

A different kind of experimentation that often goes on at this age is tapping. The baby likes to get hold of any type of stick and use it to tap on the furniture, the floor, or an older brother. He is not using a tool in the real sense because he doesn't have an objective in mind, but his insistent tapping on anything and everything, certainly foreshadows the purposeful use of tools.

Many babies at this age are getting the idea of blowing. They like to blow out matches, blow on balloons and blow bubbles in a glass through a straw. Blowing through a straw may begin as imitation with the baby trying to sip through a straw like an older sister. But once the baby discovers that he can blow bubbles in a glass he may continue to blow just because it is fun. Babies don't make much of a distinction between the functions of mouth and nose, and very often you will find a baby blowing on a flower when he is told to smell it.

At the same time that the baby is exploring his surroundings he is exploring his own muscle power by challenging himself. He constantly is trying to find out just how strong he is – how big a box he can pick up, what size chair he can push, how loud he can scream, how many toys he can carry at a time.





Watching a baby struggle to lift up a heavy suitcase or push a chair through the door makes the adult wonder why the baby has to do everything the hard way. Why must he carry a teddy bear, truck, and cigar box all at the same time? Why must he go after the ball that's on the very bottom of the toy box? Apparently the baby needs to find out and challenge his physical limits just the way he has to find out and challenge the behavioral limits set for him by adults.

Babies that learn to walk at a year often have reached the climbing stage by the time they are fifteen months. Once the baby has mastered a first climbing feat, he has to practice his new skill. This practice includes all kinds of variations. He climbs on chairs, sofas, tables, a daddy lying on the floor. Some babies at this stage manage to climb out of cribs, high chairs, or strollers, without realizing how hard the floor is. Parents may need either to raise the sides of the crib or lower the mattress to keep the baby from falling out. Occasionally, a baby becomes so adept at climbing that the only really safe thing to do is to lower the crib side completely or change the baby to a bed.

Once the baby has learned to climb on things he is ready to use his climbing skill to accomplish other goals. He climbs on a living room table in order to get a hand in the fish bowl, or he climbs on the corner chair to investigate the telephone. For perhaps the first time in his young life, his parents, who have always been supportive of his efforts to practice new skills, are now hedging him in with gadgets, barriers, and "no-no's." The basement stairway is gated – the bathroom cabinet is locked, and the telephone in the kitchen, just a kitchen chair out of his reach, has for some unfathomable reason been placed off limits. The frustration of all these restraints, combined with the frustration of not always knowing what he wants, can create some tough movements for an energetic youngster.

A somewhat safer exploratory interest of the baby at this age involves feeling different textures. The baby rubs his fingers across all kinds of surfaces, and sorts out textures that delight him, amuse him or displease him. Most babies like smooth soft things like silk, hair, ice-cream, polished rocks, or stuffed animals. They are intrigued by unusual textures – stubby beards, or flower heads. They often dislike things that stick to their fingers like mud, glue or chocolate pudding. This dislike of dirty fingers has little to do with the baby's wanting to be clean. It is much more likely that he needs clean fingertips to carry on his explorations.

The texture of food is particularly important to the baby at this age. He is learning now to chew and swallow a variety of table food, and is developing some definite likes and dislikes. Ordinarily, a baby's dislike list is determined by texture. Strawberries, tapioca pudding, spinach, jello, egg whites, and unstrained orange juice are often emphatically rejected.

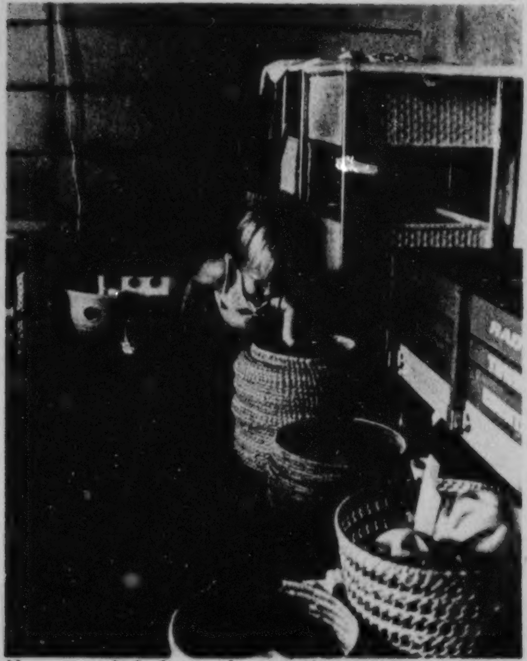
Textures under foot can be as important to a baby as the textures of the food he eats. Some babies refuse to walk on grass, others don't like cement, and many a family has dragged their baby to the beach only to find out that he hates to walk on sand.

As the baby carries out his various explorations, he is increasing his understanding of the space around his house and the objects within that space. He learns to get from room to room, and knows how to hunt through the house for a missing parent or sibling. If there are two entrances into one of the rooms he might discover how to get back to his starting point by going out one door and back through another. This kind of circle game can keep him busy for several minutes.

Essentially, then, fifteen to eighteen months is a period in which the baby is carrying on extended explorations of his surroundings and attaching meaning to the things he finds in terms of their use and their user. These meanings are still abbreviated – the vacuum cleaner is to push, the towel is to rub on the dishes, the toilet is to flush. At the same time the baby is becoming more aware of himself as a separate person, with power, potentials and limitations.

Make yourself an
apron with zippers,
buttons and laces.
Your baby will help
you get dressed.

Cut the side out of a half gallon milk carton, and plant seeds. When the seeds come up teach your baby to touch the new plant gently.



Keep your baby's toys in several small baskets. He will learn to fill as well as empty.

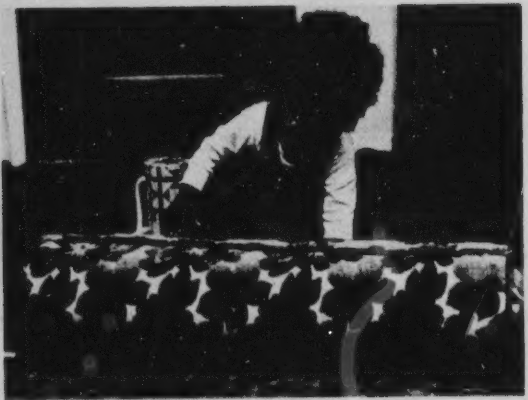
Place several small toys including a squeak toy under the rug. While your baby is not watching, step on it. See if your baby will look for the squeak.

Let your baby wear an apron with pockets. He will enjoy hiding his toys inside.

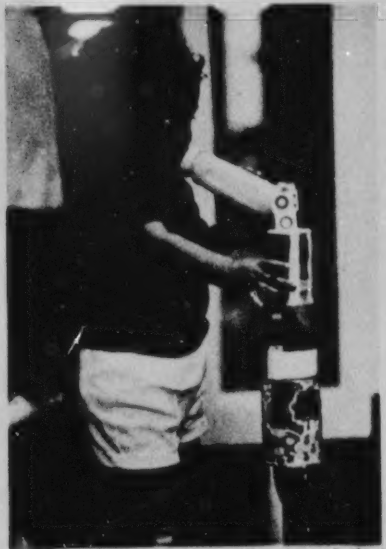
Make a boat out of a pint
size milk carton — and use
straws as a mast.

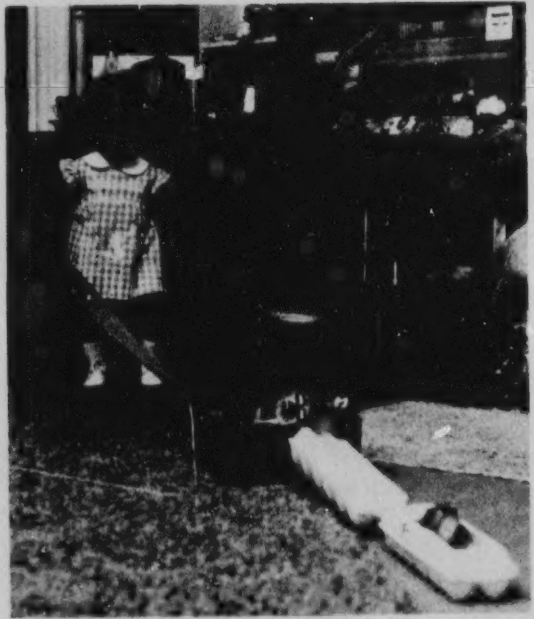
PROBLEM SOLVING

Put some raisins inside a jug.
Let your baby figure out how
to pour them out.

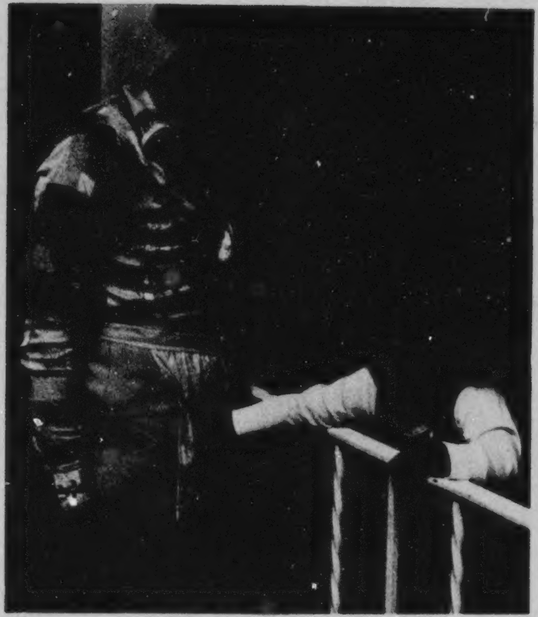

A sofa bolster makes a good
rolling toy.

Go on a nature walk
in the back yard. He
will enjoy filling his
pail with rocks,
grass and leaves.


Decorate some cans and let your baby
stack them up.


Make a long pull toy out of empty containers.

See if your baby can
fit a small can inside
a larger one.



Wear an apron with pockets, and hide a toy inside.

Give your baby a wet sponge and let him wipe the floor.

Give child a basket or drawstring bag and a large ball. See if he can fit the ball into the bag.

Make a simple inset puzzle.

Make balls out of crushed paper for a safe and simple version of a basketball.

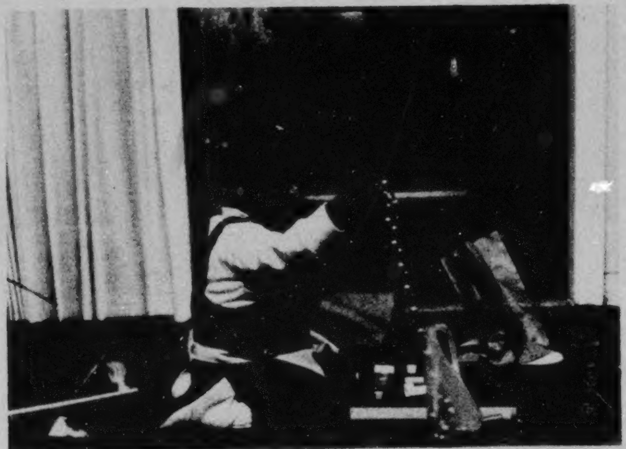
Empty lemon juice or mustard containers make a good pull toy.

PROBLEM SOLVING

Give your baby a simple pegboard.

Give your baby a stacking toy.

Screwing a lid on a bottle is easier if someone holds the bottle.

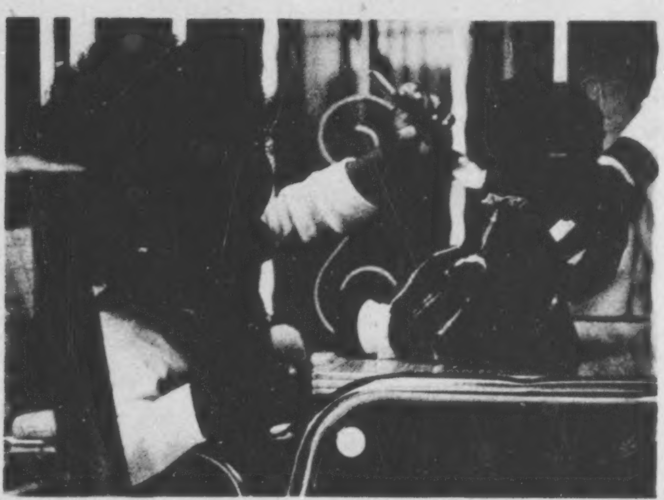


Let your chilrl put a long necklace into a small-mouthed jug.

Let your child experiment with dropping blocks, spools and straws into a narrow neck bottle.

Make a hill for your youngster to roll his car down.

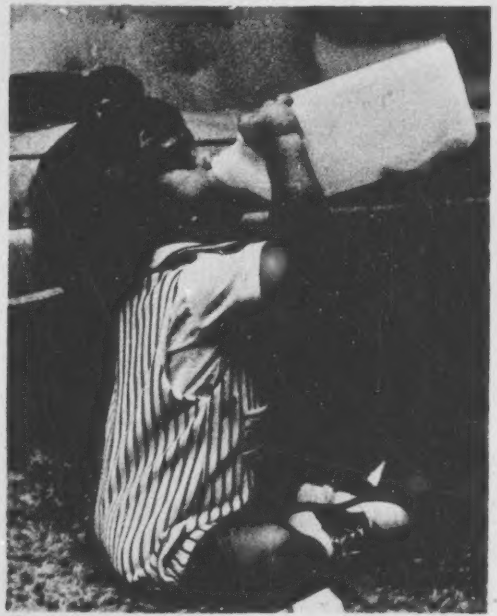
Make your baby a
cereal box drum
to wear around
his neck as he
marches to music.



Invite your baby's doll to lunch.

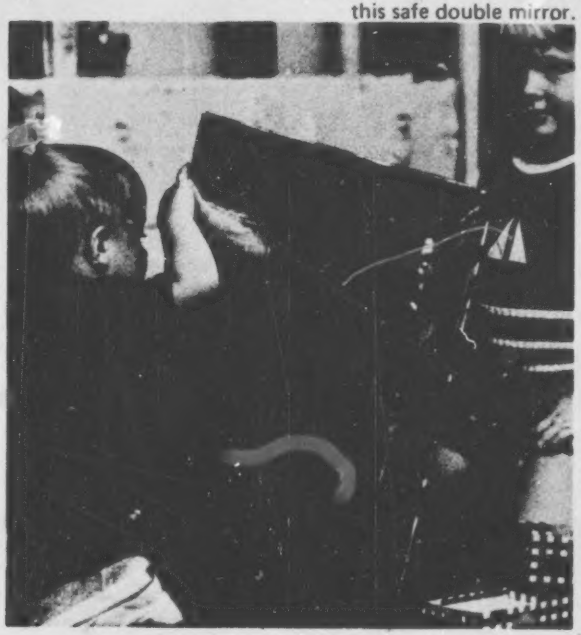
This is a fine way
to get the dusting
done.

A patch of linoleum can
inspire some
interesting play.



Save your empty
containers. Your baby
is beginning to pretend.

Make a folding screen by covering
tag board with aluminum foil. Your
son will enjoy looking at himself in
this safe double mirror.



IMAGINATION

Help your baby find familiar pictures.

Let your son water his plant.

Let your baby give "Polly a cracker"

Pie plates make good symbols.

A cardboard tube from paper towelling or wrapping paper encourages imaginative play.

Give your baby some balloons. She will play with them in many different ways.

A briefcase and a set of keys encourages imitation.

Call your baby to the phone.

A bag with a shoulder strap can inspire imitative behavior.

If your baby resists having his hair brushed give him a chance to brush his doll's hair.

A paper plate on a stick makes a fine doll.

Save your old wallet. Put some family photos in place of license and charge cards and your baby will love it.

When you and your son play with trucks or trains show him pictures of real trucks or trains.

Make your baby his own book with a variety of textures.

Make a simple finger puppet.

Put an ankle bracelet with bells on your child's leg. It will jingle as he runs or dances.

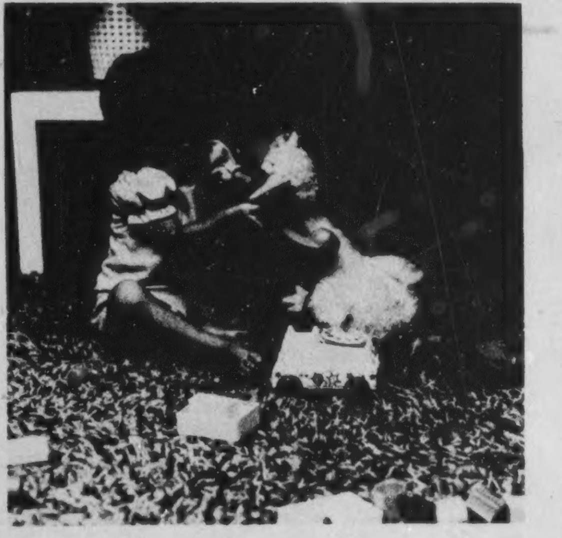
THE 18 TO 21 MONTH OLD

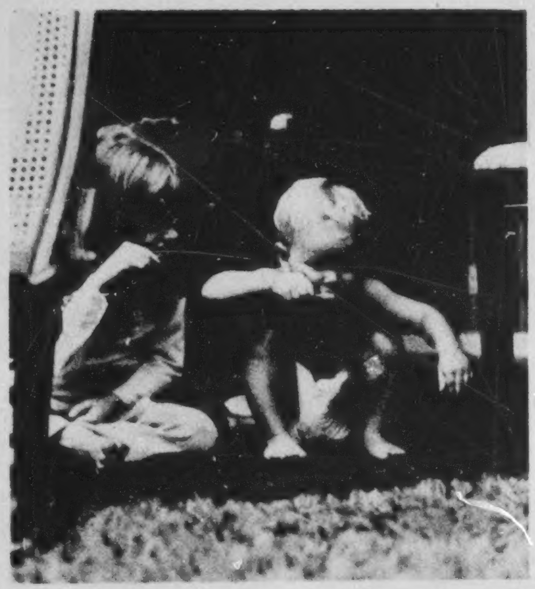
18–21 MONTHS OVERVIEW

An eighteen-month-old baby sits on the floor and holds the telephone up to the ear of his stuffed dog. It takes some reflection to recognize how sophisticated this kind of play actually is. The baby is recognizing that a telephone is something that talks to you, that the ear is the part that does the listening, and that the flap on the side of the dog's head is an ear. When the baby places the telephone to the dog's ear, he shows us that he has made all of these generalizations and can put them together in his play. This kind of imaginative play signals a new level of thinking that begins to appear between eighteen months and two years. In essence, the baby is holding an idea or concept in his head. This concept is not bound up with the particular. An ear is not just his own ear – it is a thing that you hear with. The baby is thinking on a symbolic level.

Just as the eighteen-month-old baby demonstrates a new level of thinking in his imaginative play, we are apt to see a real spurt of growth in the development of language. Many babies are now going through a naming stage, where a favorite game is attaching a name to a thing. The connection between name and thing may be emphasized by the baby's touching with one finger the thing that he names. Some babies interested in naming objects will use a question form like "whatsit?" or "Itsa?" when they want to know what something is called.

As well as making new connections between things and the names they are called the baby is learning to associate a tool with the function it performs. At a younger age the baby's use of tools was purely imitative. His sister was moving a crayon up and down the page, and so he wanted a turn. Now he wants to play with his sister's crayon so that he can make a mark on the wall or cover up the writing in his mother's address book. He wants a key to open the briefcase, a sponge to soak up his milk, or a toothbrush to brush his teeth. He uses other tools in the same way. He is not interested in what his scribbling represents, but his scribbling does have a definite purpose.



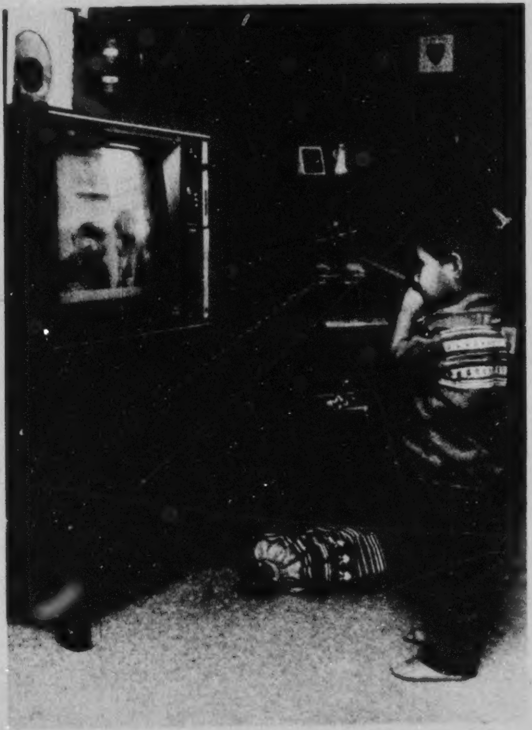


As the baby becomes more adept at using a variety of tools, he naturally wants to do more things for himself. He wants to feed himself soup, put on his own sock, put the record on the turntable, pour his own milk, and cut his own piece of meat. Sometimes there is a conflict between the baby's intense desire to get something to work and his equally intense desire to do it by himself. The buckle won't go in the shoe, the zipper won't pull up, the key won't fit in the key hole, the flap won't go down on the raisin box. The baby is torn between wanting an adult to help him and wanting to do it by himself.

Parents find themselves in a no-win position. The baby gets angry if the parent withholds his help, but he also gets angry when the parent provides the help. It takes quite a bit of ingenuity to provide the baby with opportunities to do things for himself within the limits of his capabilities. No matter how hard the parent tries to find toys, play things or household tasks that the baby can manage by himself, inevitably the baby will frustrate himself with a challenge he just can't manage.

The same kind of drive that puts the baby in frustrating predicaments makes him fun to watch. He is constantly performing new feats that show how much he has observed of adult behavior and how very well he can mimic. The baby may come out of the closet wearing his mother's wig or shuffling along in his father's shoes. Or he may pick a dandelion from the backyard and "plant" it inside the ivy pot. This is more than simple imitation. It's the baby's interpretation of what an adult does.

Many parents have indicated that their eighteen-month-old baby is interested in watching children's shows on television. When we asked parents what program their baby liked most, the most frequent answer was Sesame Street. Several parents described their babies as laughing at cartoons or singing along with commercials. Occasionally a baby identifies a



particular puppet or animal, and watches selectively for his favorite character to appear.

The baby's interest in watching television is usually paralleled by an interest in children's books. Most babies at this age do not like having a whole story read to them. They enjoy picking out and pointing to familiar pictures or listening to an adult talk about familiar pictures or events.

The struggle for autonomy is a major thrust of the second year of life. It seems to reach a high point between 18 and 21 months. We have talked about the conflict that arises when the baby can't do something by himself, but doesn't want to ask for help. Other conflicts arise when the baby tests out his power to make decisions for himself or to make other people do what he wants. Often the baby will use "no" just because he can. His parents may ask him to show Nana where his ear is. He shakes his head and says "no" in an angry voice. Actually the baby has no objections to touching his ear, but he needs to say "no" to the request in order to establish his power.

Another power struggle takes place when the baby's insistence on doing for himself interferes with family plans. For example, Janet's family may be ready to go on an outing, but Janet is standing in the doorway screaming at the top of her lungs. The problem is that she can't get the zipper done up on her jacket and she doesn't want anyone to help her.

An almost equally exasperating aspect of the autonomy struggle is the baby's inability to make choices. The parent asks the baby if he wants a cookie or lollypop. First the baby says, "cookie" but as soon as he gets the cookie he wants a lollypop. The parent patiently takes away the cookie and gives him a lollypop but now he wants the cookie again. The problem is that the baby wants the right to choose but does not want to make a choice. From his point of view he doesn't have a choice unless he can choose them both.

This period of development can be difficult for the whole family. The baby is struggling both to be independent and to control people. He does not have a realistic idea of his own capabilities and doesn't know how to accept help when he needs it. The parents, too, are in an ambivalent position. On the other hand they want their youngster to be independent and self-sufficient. On the other hand they miss their loving and compliant baby. The child's new demands for autonomy, his constant no's, his refusal to accept help, and his inability to make choices produce some trying moments. And yet, if the family can tolerate these difficult moments, it is a particularly exciting period. Suddenly the baby has developed a sense of self – a recognition of his personal rights and privileges. In a period of just a few months the baby who could be fondled, fed, and put to sleep, has become a competent, self-willed youngster who must be dealt with on his own terms.

LEARNING ABOUT SELF AND OTHERS

The self awareness that develops between 15 and 18 months lays the foundation for the child's efforts to be autonomous between 18 and 21 months. Autonomy is a large word that means getting your own way, being able to realize your wishes. Often autonomy is identified with independence and power. However, autonomy also involves dependence and limitations. In the real world a person's desires must be adapted to the needs of other people and to the physical limitations of things. True autonomy is a balance between feelings of independence and dependence. A child needs to depend on other people as well as to be self sufficient. He needs to recognize both his own power and its limitations. Obviously a child does not acquire autonomy overnight. The balance between independence and dependence continues to be an issue between parents and children at all ages. Yet between 18 and 21 months many children impress parents with their ability to assert themselves and to make decisions for themselves.

The eighteen month old child is beginning to make choices in simple situations. Like any skill, making a choice improves with practice. It is a simple matter for a parent to give a child options when feeding or dressing him – "Do you want milk or juice?" or "Do you want to wear this red shirt or this blue shirt?" At first the child may not understand, but gradually he will learn how to make a decision.

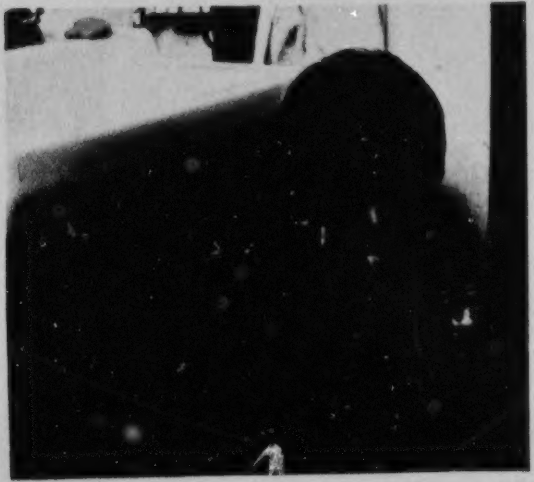
Feelings of autonomy, of being in control, are often negative at this age. The child asserts himself by resisting someone else. He refuses to obey his parents; he fights with his brothers and sisters over toys. Encouraging a child to assert himself by making a choice helps the child develop positive feelings about autonomy. Naturally parents do not ask a child to make choices he cannot understand. Even more important, they do not offer the child a choice when they already have made a decision. If they have decided the child should wear the blue shirt, they do not give him a choice between blue and red.

Giving a child some choices does not eliminate conflict. In fact, it may increase conflict. As the child develops more confidence in his ability to direct himself, he may resist parental requests more frequently. "No" may become a habitual response to every parental request.

There is no magical solution that will resolve these conflicts. Both children and parents are going to lose their tempers from time to time. However, parents can keep the word "no" from turning into a highly charged symbol. Sometimes they can ignore a child's "no." For example, suppose a parent suggests a new way to play with some blocks, and the child says "no" and pushes the blocks away. The parent can ignore this invitation to argue, and more than likely the child will try the parent's suggestion a few hours later.

On other occasions parents can turn a child's "no" into a game. Suppose the child does not want to eat his cheese. The parent can ease the tension by handing the child a toy car and asking him if he wants to eat that. When the child shouts "no", the parent can suggest eating a pillow or the T.V., the more absurd the better. Usually the child recognizes the joke and has great fun yelling "no" amid peals of laughter. In the end he still may not eat the cheese, but he has broadened his understanding of "no." It does not always have to signal a battle.

From a parent's viewpoint, independence means that the child is learning to take care of himself. Between 18 and 21 months a child may learn to feed himself with a spoon, wash himself in the bathtub, and make an attempt to brush his teeth. Unfortunately, however, the child's idea of independence does not always match the parent's idea. Many children at this age learn to remove some or all of their clothes. They strip off their shoes and socks, or their diapers. Parents would be happy if the children were learning to dress themselves, but this is not the way it happens. Undressing precedes dressing, and the parent



is faced with a child who wants to run around the house naked but is not toilet trained.

Another common problem is the child who refuses to let the parent hold his hand while walking down stairs. On a shopping trip, when the parents want the child to be independent and walk by himself, he may ask to be carried. But when the parent wants to hold his hand because of a dangerous situation, the child insists on being independent. In such cases parents weigh the value of encouraging a child's independence against the risk it entails.

Sometimes a conflict situation arises over a daily routine – like washing, bathing, eating or bedtime. The resolution of such conflict may be brought about through the development of a ritual. A child may have a bedtime ritual, a changing ritual, rituals in the bathtub, at the table. Rituals are a compromise. The parent gets what he wants, but the child feels that he is an active participant and not a passive victim. For example, the bedtime ritual helps get the child to bed, which is the parent's objective, but the child feels he has some control because he makes sure that the parent completes the ritual. The child is the keeper of the ritual.

Rituals may be quite short and still effective. A child may want his blanket arranged in a particular way; he may insist on an ice cube in his hot soup or ketchup on his meat. Some of the most effective rituals are verbal. The child is old enough to understand the parents' language, and he can be soothed by a familiar verbal game. For example, the parent may sing a short song, like "Baa, Baa, Black Sheep" when putting the child to bed. Or the parent may sing a simple song to the child while dressing him – "Put your little, put your little foot in your shoe." When washing the child's face the parent may pretend to paint different parts of the child's face with the washrag.

The child's growing sense of autonomy is reflected in his attitude toward toys. He is more possessive about his toys and may hide them from siblings or other children. He developes favorite toys

and honors them by taking them to bed or dragging them along in the car. Parents may be startled. Is their baby who used to be generous about sharing his possessions suddenly becoming selfish? In actuality, when a baby first uses the word "mine," he is using it to mean "give it to me," or "I want it."

Yet toys are more than desirable objects. They are symbols of the child's autonomy. Every parent has been exasperated by a child who keeps taking toys from other children. He does not want to use these toys; he wants to keep other children from using them. Everytime the other child picks up a new toy, he takes it away. The child who guards his toys so protectively is trying to protect his sense of power. The toys are important symbols, and the more toys he has at his disposal, the more he feels in control of the situation.

"Sharing" is a theme parents communicate constantly to their children. Gradually the child learns that he can let another child play with a toy and still retain his right to use it. He may have to delay playing with it for a few minutes, but eventually he will get the toy back and usually it will be intact. In the long run, sharing toys does not make much sense to a child until he is quite a lot older and can cooperate with other children. Then sharing has benefits. It is more fun for two to play than it is to play alone.

A child's sense of autonomy is nurtured very much by his increased ability to use language. Between 18 and 21 months many children develop a large vocabulary of labels. As they point and name objects or pictures, there is an obvious feeling or pride in their voices. To name an object is to gain a kind of control over it.

The labels that the child is learning help him separate the world into categories. They help cement his concepts in place. For example, the child who learns the word "car" starts to find cars everywhere – in picture books, magazines, T.V. commercials, on the highway, in toy stores and used car lots. He probably has recognized some cars for a long time, but the word helps him make the category of "cars" more complete. He is learning what a car means in general.

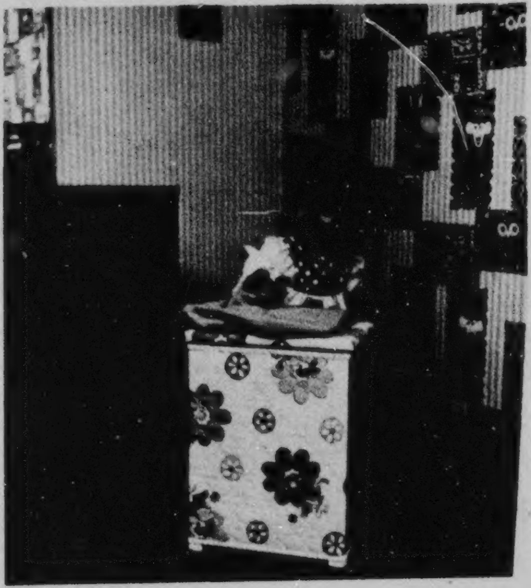
Often the child uses a word more broadly than adults would. Typical examples are calling every man "daddy" or calling all large animals "cow." These examples are rather humdrum. Actually the ability of a child to generalize is both amazing and amusing. One little girl we visited found constant opportunities to use the word "poop." She notified her parents that she needed a change by saying, "poop-stinks." She described mud in her bucket as "poop." Some slobber on her arm was "poop." When fruit was peeled, the skins were labeled as "poop." Even a crayon scribble on the wall was "poop."

Between 18 and 21 months children also learn to label actions or qualities. The child says "up" when he wants to be picked up, or "on" when he wants the light on. He notes that water is "wet" and that the stove is "hot." Often children learn only one word in a pair of opposites. Strange as it seems, the child uses "hot" to mean both hot and cold. "On" may mean both on and off. It takes time for the child to learn opposite terms.

Sounds are used as labels sometimes. A cat may be called "meow," or cars may be called "zhoom." If the sound of the object is its outstanding characteristic, the child adopts the sound as the name.

All these qualities of a child's first labels mean that parents have a difficult job figuring out what a child is saying. It takes a lot of listening skill to understand the language of most 18-21 month old children, and it takes patience to accept and reinforce their garbled efforts. A parent may become very tired of hearing the child say "Whatsat?" However, the child has discovered that everything has a name, and that is quite an insight.

Naming is an exercise in matching. Things that are similar in some way have the same name. Between 18 and 21 months many children are capable of matching letters and learning their names too. Of course the letters have no symbolic meaning to the child; they are



just designs. It does not seem especially important for children to learn letter names at this age. They will not learn to read for several years anyway. However, if they show interest in these funny shapes, parents can encourage their curiosity.

Toward the end of this period of development, some children begin to produce original sentences – very short sentences, to be sure, only two or three words long. The two word sentence expresses some kind of relationship, some kind of association, between two words. Perhaps the child points to his father's coat and says, "Daddy-coat" or indicates that the cat is in his high chair by saying "cat-chair." Verbs that the child learns, such as gone, fall, broke, eat, can be combined with many labels to produce two word sentences – "Daddy-gone," "Juice-gone," "ball-gone." These simple combinations represent a great leap forward from the single word stage and are very exciting for parents who have been waiting months to hear them.

A child's ability to understand language grows rapidly between 18 and 21 months. Although he may not listen to a storybook, he may enjoy hearing nursery rhymes. Of course, any nursery rhyme he likes must be repeated over and over. Some children at this age like to listen to the words in simple songs. A record of children's songs and nursery rhymes is a good investment for a child who seems attracted to language in rhythmic form.

Some 18 to 21 month old children continue to imitate readily the language around them. They repeat whatever is said to them and they repeat themselves. Such children can learn to repeat nursery rhymes. Other children seem to stop imitating phrases during this period. These differences represent two language styles. Neither style is a superior method for learning how to talk.

One of the most important distinctions that a child learns between 18 and 21 months is to identify the sex of other people. The child may learn to label a person as a "lady," a "man," a "boy," or a "girl." The child identifies himself as a boy or girl and starts to form sexual stereotypes. Many girls at this age become sensitive to new clothes. They show off their new clothes and notice when other members of the family wear new clothes. "Pretty" becomes a frequent word in their vocabulary, used to describe themselves and other people. Boys, on the other hand, may show off by demonstrating their strength. When visitors arrive, the boy may push a heavy stroller around the house with boastful shouts. It is a controversial issue in our culture how much of this sex differentiation is necessary or desirable. Whatever their beliefs, parents are likely to see some kind of sex role behavior in their children between 18 and 21 months.

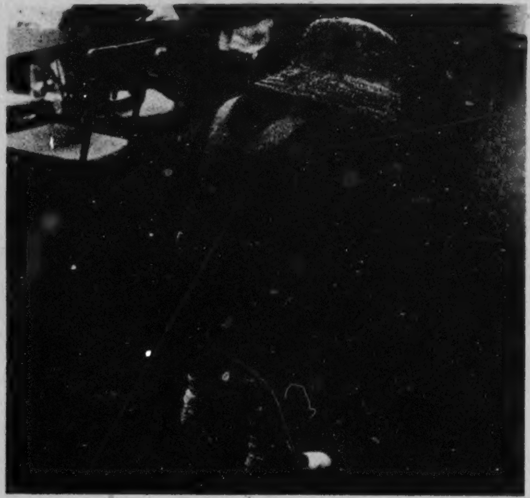
Part of the child's exploration of roles is dressing up. Although the child does not engage in elaborate dress up activity, it is common to see him rummage through a closet for his parents' shoes. The child drapes ties and jewelry around his neck. He loves all sorts of hats, and even invents new hats. Perhaps a wastebasket or a salad bowl will be converted into a hat. As the child experiments with new clothes, his interest in mirrors is rekindled. The 18 to 21 month old child may spend considerable time admiring himself in the mirror.

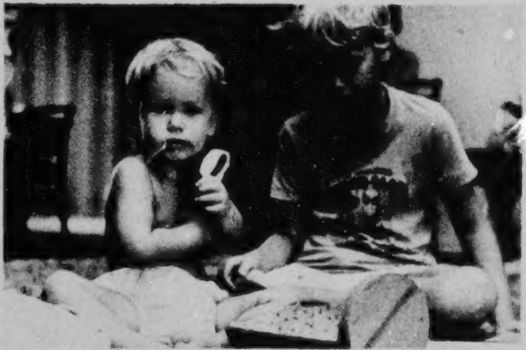
Dressing up is a kind of early pretending. The child is assuming the role of an adult by putting on adult clothes. Shoes seem to be the most important symbols in such dress up activity. The child is beginning to consider himself a child and not a baby. Babies usually do not wear shoes, but children do. Wearing shoes is a sign that the child no longer is a baby. By extension, wearing the shoes of adults is a step toward adulthood. We forget how important shoes are for children. A child periodically gets new shoes because he is "growing", and the connection between growth and shoes is a strong one. It is not unusual to overhear pre-school children arguing about whose feet are biggest. Having big feet is a virtue in the world of children.

Although the child likes to dress up, he often is afraid to wear some clothes and accessories. He may resist a pair of goggles, an apron, or a certain necklace. The child has a new awareness of his body and he does not want to wear anything that strikes him as strange. It is hard to predict ahead of time what a particular child will find strange, but parents should be sensitive to this new development.

Some children get very upset when food spills on them or their fingers get sticky. Such a child may be quite content to play with mud because he chooses to play with it, and therefore the activity supports his feeling of autonomy. Soup on his shirt, however, upsets him because it occurs despite his wishes. A child between 18 and 21 months may become so upset with spills that he wants his parents to feed him. He will not go back to eating with his hands, but neither will he use the spoon.

Just as the child begins to pretend by dressing up, he also pretends to perform other daily activities that are important to him. The most common forms of imaginary play involve pretending to go to sleep or to eat something. The 18 to 21 month old child likes to have his parents join him in these games. He covers them up with blankets, pats them, and says "night, night." If encouraged, he tries to feed them pencils, blocks, and other pretend foods. The child finds this kind of pretending a good joke, and if the parent pretends to eat the child's fingers or toes the child laughs heartily.





Pretending can be extended to dolls, but again it involves very simple actions. The doll is covered with a blanket or fed from an empty cup. There is little elaboration of the activity, although the child will copy the more sophisticated pretending of older children or adults. The child does not talk much while pretending, but he does enjoy listening to a simple dialogue supplied by the parent. If the doll gives the child a good morning kiss and tells the child that he is hungry, the child listens eagerly and often responds to the doll's request.

Much of the child's pretending is still imitative. The fantasy element is minimal, but the child has started to define autonomy in a more subtle way. Independence and power can be expanded through imaginary play. At the same time the child is beginning to develop another use for imagination. Little incidents occur from time to time which show that the child can empathize with another person. When a sibling pinches his finger, the child helps kiss the hurt finger. When an older sibling gets a shot at the doctor's, the younger child cries too. The child gets upset when his parents argue. In such incidents the child is able to empathize because he imagines, to some extent, the feelings of the other person.

Between 18 and 21 months a child's ability to express aggression often increases. Although he still hits by slapping clumsily, he knows what he is doing when he strikes out. At the same time, however, he is beginning to learn that small babies and animals must be handled gently, that delicate objects will break if treated roughly. It is only a start, but the child is learning when aggression is justified and when it is not, and this is the most difficult lesson of all to learn about autonomy.

DISCOVERIES AND ACHIEVEMENTS

From 12 to 15 months the baby's primary way of exploring was through emptying and pulling apart. Beginning around fifteen months he developed an interest in refilling containers. Now, at eighteen months old, we see another shift of interest. The baby is investigating different ways of piling, building, and putting things together. He is interested in stacking up containers in great giant piles or arranging assorted things in very long rows. He is curious about the kinds of things that he can fit together. It is as if he is asking, "In how many ways can I rearrange the objects I find around me?"

As we watch the baby go about his task of rearranging the objects in the house we recognize that he is hard at work. He may take out all of his trucks and cars and make a row along the carpet, or line up all the food cans across the kitchen floor. Another time his building activity involves making a pile of things. The same cans that were placed in a long row are now piled precariously one on top of the other in front of the kitchen door. When asked to put his things away the baby is highly insulted. After all, from his point of view that is exactly what he is doing.

As the baby piles the cans of food on top of each other, or makes a tower out of blocks, he is working on the problem of balance. What will happen if he puts a big block on top of a small block or puts a large can of soup on top of a pile of blocks? When one of his buildings topples over he says "oo-oo" or "oops" in a perfectly cheerful voice. His exclamation is an announcement of the event, and not an expression of displeasure. The toppling over is as interesting a part of the activity as the building up.

The baby is apt to spend more time playing with toys than he did at an earlier age. Trucks and wagons, blocks, puzzles, balls and stuffed animals tend to be favorite possessions. Now that the baby can walk backwards as well as sideways he can fill a wagon with toys, rearrange the contents, and pull it around the house. He can also sit inside a wheel toy – fire engine, toy car, etc. and push it along with his feet. A few babies at this age can manage a toy with pedals.

The most popular "non-toy" play materials are often things with handles. The baby is learning to use a handle as an extension of his hand. He likes to sweep, mop, hammer, vacuum, shovel, rake or scoop. The harder his tool is to manage, the more determined he becomes to put it to use. Partly he is trying to do the things that big people do, and partly he is intrigued with the doing. When a baby manipulates a long-handled tool like a rake or a broom he is more interested in the activity than the outcome. He isn't concerned about how many crumbs are left on the floor or how many leaves are still scattered. On the other hand, when he is using a short handled tool like

a hammer, he is more apt to focus on results. He hammers down a peg on his peg board and checks to make sure it went down. Other small tools that the baby uses with some concern for the outcome are toothbrushes and hairbrushes, spoons and forks, paintbrushes, scoops and sand shovels.

Along with his new interests like stacking, arranging, and using tools, the baby is elaborating some of the interests he had at an earlier age. Ball play, which has always interested him, is becoming more sophisticated. For the younger child playing with the ball meant carrying it in his arms, pushing it with his foot, throwing it off his high-chair or trying to sit on top of it. A game of catch meant sitting on the floor with legs apart and waiting for the ball to roll between his legs. Now, at eighteen months old ball play is much more grown up. He watches the path of a ball that is rolled to him and squats down on the floor to catch it. He attempts to throw the ball back. Sometimes he tries to throw it so hard that the ball ends up dropping behind his head. At other times he throws the ball in the opposite direction in a deliberate attempt to tease.

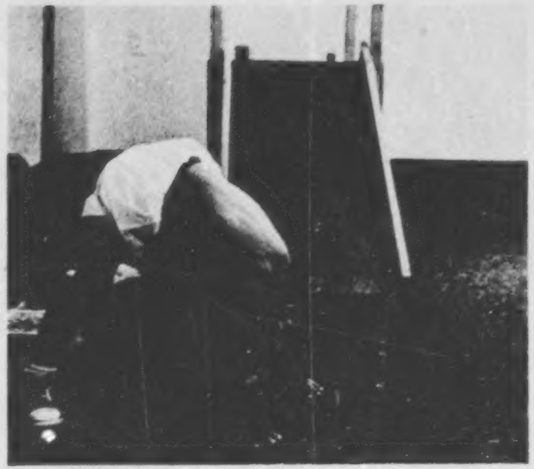
Filling up containers is another early scheme that is becoming more elaborate. For several months the baby has been interested in pouring water from one container to another. During this pouring activity his interest was focused on the container he was pouring out of. Now he is beginning to notice the container he is pouring into. He is learning to stop his pouring soon after the second container overflows. When his mother pours him a glass of milk he makes sure he has a full glass. He is also concerned about having enough water in his bathtub or having a cookie for each hand.

The baby's pushing scheme has also become more elaborate. He has stopped pushing chairs or boxes as an extension of his walking activity and is now becoming interested in pushing things. He may shove his wagon into the sofa, push the cart in the grocery store, or use one of his toy trucks to push another one along.

As the baby builds with his blocks, intercepts his ball, and pushes and shoves his cans around the house, he is discovering more and more about relationships in space. He is learning, for instance, that if he opens up his legs and pushes a ball between them, he is able to turn around and watch the ball roll away. He is also learning through a series of experiences that he himself is an object in space. One of the little girls we visited went through an interesting sequence of activities showing this beginning awareness of herself as an object in space. Maja was playing with a little car and some blocks. One of the visitors made a tunnel out of the blocks and showed Maja how to push a car through the tunnel. For several minutes Maja pushed the little car under the tunnel, back around, and under the tunnel again. Quite suddenly she got up, scooted under the table, under her father's legs, and back under the table. She seemed to be saying, "Look at me, I can go under things just like my little car."

Several playground kinds of activities capitalize on the child's interest in exploring space. Slides, swings, horses, jungle gyms, see-saws and stepping stones are all designed to give children different kinds of spatial experiences. Although youngsters enjoy this kind of equipment, they find their own substitutions when it is not available. A box to climb in and out of, a bed to scoot under, or a mattress to jump on can provide plenty of opportunity for exploring positions in space. Swings and rocking horses also have great play appeal.

Closely related to the baby's interest in spatial relationships is a heightened interest in disappearing objects. Here again, the baby is interested both in objects that disappear in space and in himself as a disappearing object. He is ready for a grown up version of hide and seek in which his mother closes her eyes and he goes off to a hiding place. When it's time for his mother to look for him he calls out to her excitedly, not realizing, of course, that the sound of his voice gives away his location.



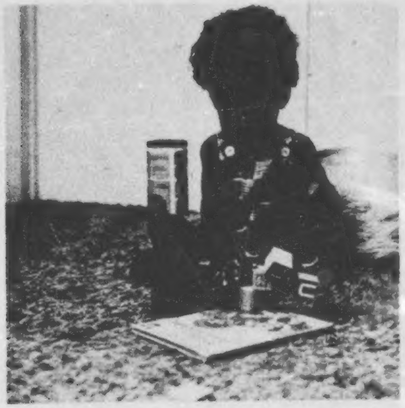
Several of the toys that children enjoy most at this age could also be classified as hidden object games. In a popular post office toy, shape blocks placed into slots disappear inside the box. In a Jack-in-the-box toy, a turn of the key makes a clown pop up. In a hammer and work bench toy, the pegs reappear when the bench is flipped over.

The baby's fascination with the phenomenon of hidden objects is evident in many of his investigations, as well as in his choice of toys. This is an age when a baby is apt to look down his parent's mouth to see where the food went, stare at a dribbling lollypop, or peer down the bathtub drain to find the missing water. It is also an age when a baby pays attention to his shadow. Could his interest in his shadow be related to his concern with disappearing objects?

As we watch the baby playing with his favorite toys, it is always interesting to try to detect what features of the toy make it appealing to the baby. In some cases toys have more than one element that could capture the child's interest. This is particularly true of simple inset puzzles. In a sense, an inset puzzle is a hidden object game. When the missing piece is put in place, the hidden object reappears. At the same time an inset puzzle is a filling-the-container game where the object is to fill the puzzle with all the pieces. It's interesting to watch children when they first get interested in an inset puzzle. They find the spot where the piece belongs, but fail to orient the piece so that it slides into the spot. Often you will see a baby pounding on a piece of puzzle in an attempt to force it to fit.

As we follow the youngster from spot to spot in the course of a day's activities, we recognize how much of what he does is goal-oriented. In other words, the child, in a primitive way, is able to "think up" a plan and carry it out. He fills a container with water, so that he can water the plants or he undoes a safety pin so that he can take off his diaper.

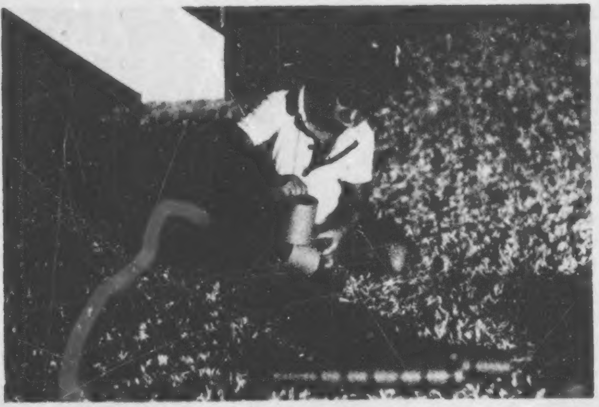
Almost week by week we see the youngster elaborating play activities. With each elaboration he is extending himself both in time and in space, remembering back to things he saw and places he's been and making plans for what to do next.



Some babies enjoy piling up blocks and knocking them down.

By now the baby is ready to use a play bench.

Putting a pen inside a holder is an interesting challenge.



Give your child tubes of different sizes. He can experiment with "fit".

Hide a toy in a box. Put the box inside another box.

"Scooping" is a good activity at this age.

PROBLEM SOLVING

Play a game of hide'n seek with toys.

Putting a top on a container
is an interesting challenge.

Boys and girls enjoy filling a dump
truck with sand.

Take the busy board out of the crib and put it on
the floor. Your child will discover new ways to
play with it.

Place pictures
from catalogues
on tag board
squares. He will
enjoy finding a
match.

Some babies are ready to play with
a peg board. A ceiling block
works well.

Let your child turn on a flashlight.

Give your baby strong plastic cutlery. Two sets of strong plastic forks, knives and spoons and two paper plates. Let him play party with his doll or teddy bear.

Sand – and containers are naturals at this age.

Make your child a cardboard tray. Let him carry around a tray of spools or empty cups.

By now your baby may be able to wind up a music toy.

Keep your child's books within reach. This is an age when your child may want to "read" to himself.

PROBLEM SOLVING

Paint spools three different colors — and paint circles on a piece of tag board. See if your baby can place a spool on the same color circle.

A small flat box makes a perfect toy.

Wrap a favorite toy — like a small ball, or a truck, in a piece of foil, and let your baby unwrap. (This is not a good game if your baby still puts everything in his mouth.)

A stair slide is a good piece of equipment for a day care center.

Give your baby a button book.

Make your baby a rhythm instrument, and let him march to music.

Place the pictures of the family on a large block.

Go through the family album often with your baby. It will help him understand about growing up.

Show your baby a mirror when he's wearing swim goggles.

Cut and mount pictures of food that your baby is familiar with. Name the foods with your baby as you take them out of a box.

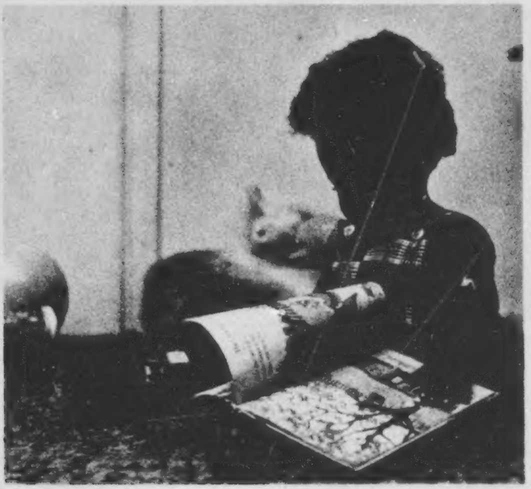
In warm weather let your child play with an outside water spigot.

Put a small toy inside a match box. See if he can retrieve it.

If your baby keeps wanting to wear your glasses get him a pair of swimming goggles.

Give your daughter a paint brush so she can paint her toys.

As your child becomes more imaginative he will become more and more intrigued with puppets.



A colorful book and a comfortable corner create an early interest in reading.

Tape your baby's conversation and let him play it back.

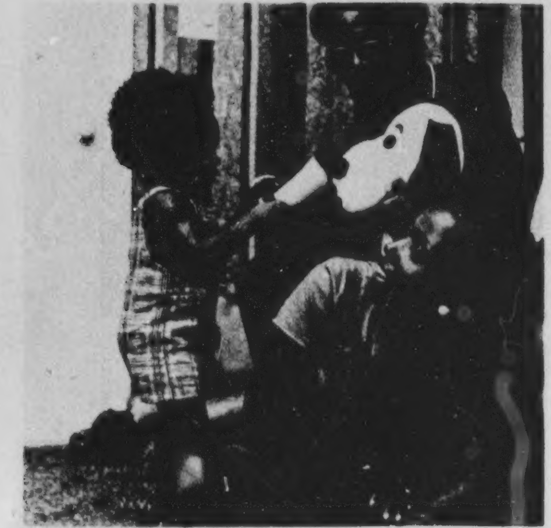
Make a cradle out of a cereal bowl.

Put a collection of small toys in a box, and let your youngster name each toy as you take it out.

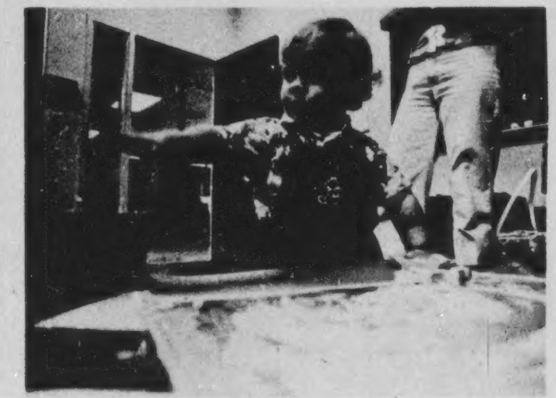
Make your child a spool necklace.

Dressing a doll is too complicated – but a butter dish hat goes on easily.

Let your youngster brush his dog's hair.



Suggest a drink for the dog.

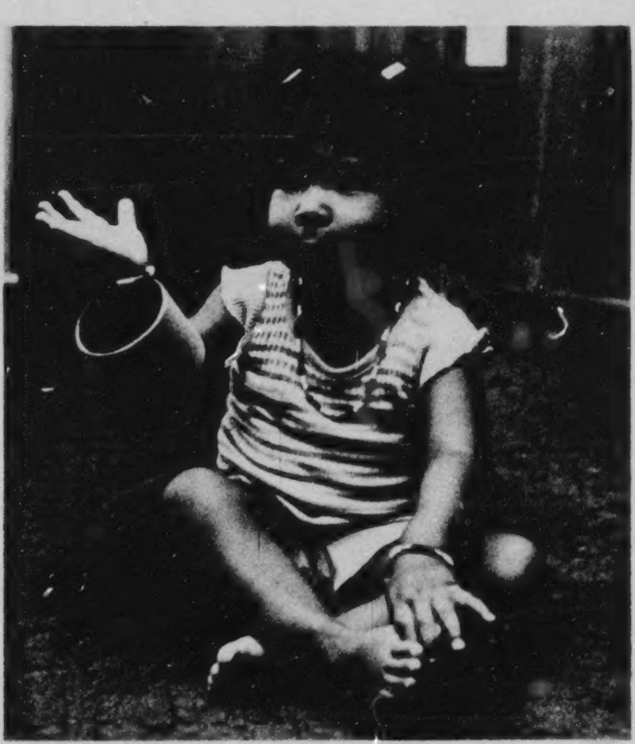


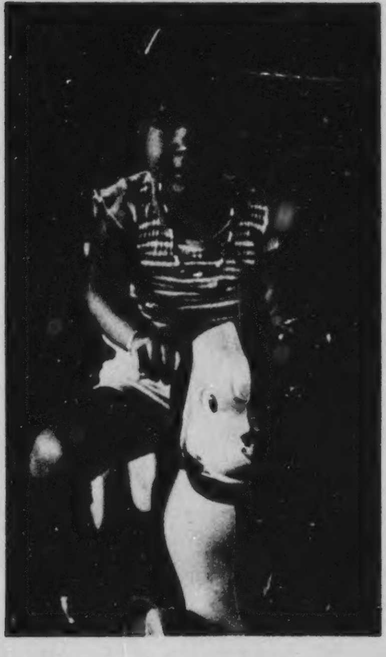
Your baby will enjoy finger painting with shaving cream. Use a plastic place mat instead of paper.

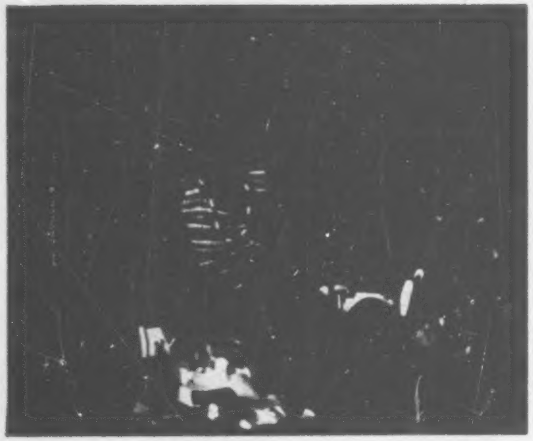
Let your child put his own toothpaste on the brush.

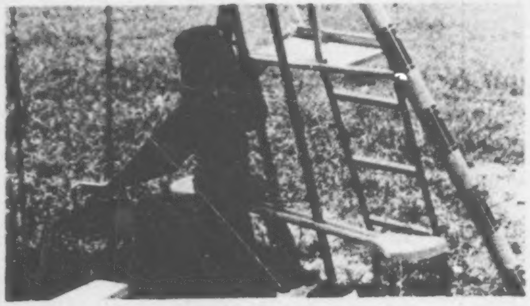
Save your old camera. It makes a fine toy.

Bedtime may be less of a struggle if you let your child help you get his dog or doll ready for bed.









21-24 MONTHS
OVERVIEW

Nana–up–up up horsey–Pop weasel–Pop horsey–

Nana horsey all gone–all gone horsey–

all gone Pops–Nana

As the two year old drifts off to sleep, he carries on a continuous monologue, experimenting with different arrangements of words and phrases, and playing back bits and pieces of his day's experiences. This conquest of language is the child's major accomplishment in the second year of life. It gives him the power to communicate feelings, interests and desires with other people. At the same time the child uses language to extend his immediate experiences. He asks questions about the future, and talks about things that happened at a different time and in a different place. As he plays with the phrase, "ride-a-horse, ride-a-horse" he remembers how he galloped on his grandmother's knee while she chanted the nursery rhyme.

By two years old many children have developed a rather impressive vocabulary – including perhaps 200-300 words. Some children are able to put 2 or 3 words together to express an idea or relationship. They use expressions like "Mama coffee" to indicate that the cup of coffee belongs to mother – or "Daddy door" to inform their mother that someone rang the door bell.

Because learning language is such a critical skill parents are apt to get upset when their two-year-old does not talk. It is important to remember that children develop according to an individual timetable. There are early and late talkers just the way there are early and late walkers. A child between 21 and 24 months old may be bright, alert and an excellent problem solver, and yet not be talking. It won't do much good to try to force this child to talk. It is better to encourage language development by talking with your child and by avoiding the mistake of anticipating his needs. Instead of pouring a glass of milk when he shows you his empty glass, ask him what he would like and give him an opportunity to respond.

When we analyze a child's early vocabulary we recognize how much learning must take place before a child masters language. Each word or word combination that a child uses represents an underlying concept, or category of experience. Infants, like adults, need to make sense out of their experiences. They accomplish this by sorting these experiences into categories. A young infant, for instance, categorizes the things that go into his mouth – things to swallow – things to suck on – things to spit out. Or he categorizes people into people that he knows, and people that he doesn't know. Over time, these categories become refined. Things to eat, for example, may be divided into stuff to drink, stuff to chew and stuff to spit out. The category of familiar people is divided into Mother, Daddy, and big sister.

After a while the baby learns that things belonging in the same category share several characteristics. One of the shared characteristics is their name. Dogs bark and sniff and have hair and are called "dogs". Sometimes the child associates a name with a big category like "food." At other times he associates a name with a small category like "cookie." It takes a long time before a child can recognize that something can have two names or belong to two categories – that it can be both a cookie and food at the same time.

By the time a child is two years old he has learned to associate names with most familiar objects. He has also learned through exploration that these objects have different attributes or properties. Objects are heavy or light, rough or smooth, round or not round. The way he responds to an object is related to its attributes: balls are for throwing, rattles are to shake, band-aids are for sticking. Gradually he learns names for these attributes: gooey, heavy, pretty, sticky, dirty.

As the child learns to name more objects and label their attributes, he becomes able to talk about things that are not within his reach or things that are not even present. The ability to talk about things that are not within reach makes the out-of-doors particularly appealing for the 21-24 month old youngster. He loves to go for a ride in the car, and point out things that he spots in the distance along the way: cows, railroad tracks, the sun, a black cloud, an airplane. He also becomes interested in the way to get from one place to another. He recognizes landmarks on the way to a familiar place. He may recognize the turn to his grandma's house or the place he stopped to buy ice-cream on his last excursion.

In addition to this new interest in exploring the out-of-doors, the child continues his explorations of immediate space. He is particularly interested in what spaces he can get himself into. He might try to squeeze his whole self under the coffee table, behind the sofa, or inside a suitcase or carton. At the same time he is interested in what it feels like to be way up high. He will want to climb on the highest table or be lifted up to the ceiling.

Along with his explorations of space the child continues his explorations of objects. He builds and knocks down, empties, pulls apart, feels, twists and squeezes. In the course of these explorations he begins to recognize that objects have quantitative attributes – there is one object or many objects, they are big or small, empty or full, heavy or light. When given a plate of cookies he may begin to say his numbers. He is not really counting the cookies, of course, but he is associating number words with having more than one.

Another attribute of objects that fascinates a child at this age is movement. He discovers that things like gold fish and cats and bugs move by themselves. A second category of things – like cars, television sets and washing machines – move by themselves once they are started up. Things like wagons and baby carriages only move when he pushes them. The early experiences that the child has watching things move

and making things move help him understand the difference between animate and inanimate things.

Although much of the child's time is spent investigating and categorizing objects and places, his interest in people has not diminished. The more control he gains of language, the more effective he is at asserting himself and manipulating people. He discovers that words can make his family pay attention to him, praise him and do things for him. The struggle for autonomy that has dominated his social interactions in the second year can now take place in the arena of language. Fighting words like, "It's mine, I don't like it, go away, I don't want to" replace or accompany temper tantrums.

As important as language is in enabling a child to communicate with other people, it is not the primary use of language for the young child. We have already seen how the child uses language to amuse himself at bed-time. Actually, much of the child's play is accompanied with words. He talks to his toy truck as he pushes it along the floor or gives a serious scolding to his teddy bear.

This ability to use language to elaborate imaginative play sometimes has its drawbacks. One little boy, Mark, was playing with a toy Panda bear. As he fed his panda an imaginary biscuit, he began a long line of chatter. "Eat panda – Eat, all gone – Don't bite – No, naughty – Don't bite – He bited – He bad panda." At this point, Mark held one finger up in the air and ran crying to his Mother. The two year old's tendency to elaborate his fantasies with words can cause him to imagine fearful experiences. Sometimes, he frightens himself with his own imaginings.

When a child anticipates a frightening event, he is operating within a framwork of time. The young child's understanding of time however is quite limited. He doesn't have any real idea of clock time or of calendar time. Time for the two year old is defined by routines. He understands breakfast and asks for juice. He recognizes that the sun is setting and looks out the window for his father. He is told it is time for bed, and he brings his father a handful of diapers. But

even this limited notion of time is an important development. The world is much less chaotic when you can anticipate what's happening next. Furthermore, you can plan ahead. Allison, at 21 months, stuffed her doll and a lollipop in her sister's carriage before their afternoon walk.

Generally speaking, by the time the child reaches his second birthday he has a good grasp of his immediate world. He has organized his experiences in a time frame as well as a space frame. He has developed a good idea of where things are located in and around his house and can anticipate the routine events. At the same time he has developed a set of concepts relating to the properties or attributes of objects and has learned to use language to represent and extend these concepts. Hopefully, he has learned to communicate with others, to pretend in simple ways, to love and receive love, and to recognize his own power to be both effective and successful.

LEARNING ABOUT SELF AND OTHERS

The child's desire for autonomy continues to be evident between 21 and 24 months. As he gains skills with his hands, the child wants to do more things for himself – especially those things that seem important to him. As every parent knows, it is difficult to put on a child's shoes and socks. In fact, so much effort is spent on this activity that many children interpret it as an essential skill, to be mastered as soon as possible. It is not unusual to see a 21- to 24-month-old child struggling to buckle a left-footed sandal on his right foot.

Another common example is the seat belt in the car. The child believes that fastening a seat belt is a very important adult skill because everytime he goes for a ride his mother buckles the belt and insists that it stay buckled. Even though the child can barely operate the mechanism, he is likely to spend much effort trying to learn this skill.

Given plenty of time to practice particular skills, children during this age may surprise parents with their dexterity. A child who considers bandaids very important will learn to peel off the backing and put them on himself. A child who receives raisins as a snack will learn to open the lid of a small raisin box and treat himself. A child may become very frustrated trying to master one of these skills. However, he will be even more frustrated if the parent intervenes and completes a job that the child has started. Probably the best way to help a child is to make the problem easier. For example, a parent can put a sock on halfway and let the child pull it on the rest of the way or loosen the faucet just enough for the child to turn it on when he wants to wash his hands.

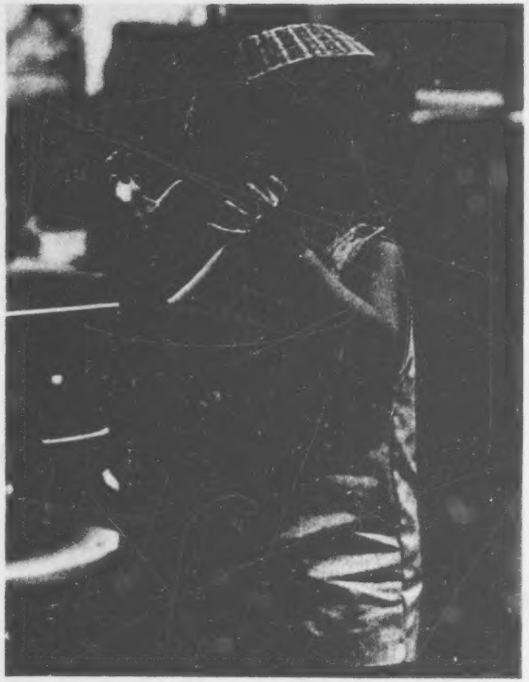
In many cases there is a new quality to the child's self assertion between 21 and 24 months. The child has acquired a broad facility in using language. He can communicate a great variety of requests and observations – at least to his parents who are familiar with his peculiar dialect. Between 18 and 21 months the child typically experimented with "no" just to see what effect it would have. Now he has enough language skill to carry the experiment a little further. He can use new phrases to order adults around; he can experiment with different commands. When his mother sings a song, the child may yell "stop it" to see what will happen. The child may command the driver to "go" when the light turns green.

Parents often are surprised by this barrage of commands, and they may be unsure how to react. Most people do not like to be ordered around. Yet it should be remembered that a young child's commands are not actually threatening. After all, the commander is only a child. His orders are an exploratory, tentative attempt to control other people. A parent can stop the child at any time by telling him to be quiet, but this kind of solution seems worse than the problem.

Not all commands are of equal importance. Some are harmless and even amusing. Others represent a significant step forward by the child. When a child says "open" or "help me," instead of tearing a toy to pieces in frustration, progress has been made. It would be nicer for parents if the child said "open, please," instead of barking out a command, but progress does not come all at once.

Another command that is a healthy sign is "look." The child between 21 and 24 months often asks his parents to admire his efforts. The child is seeking adult approval of his behavior, and this is a good thing within limits. It would be too bad, however, if the child felt everything had to be approved and praised by his parents or if parents felt that they had to make a large fuss over every little thing the child did. Extravagant praise is really a disservice to the young child because it tends to make him overly dependent on adult approval. It is important for the child to develop confidence in his own judgments. In the long run, extravagant praise is not even effective. The child eventually detects the insincerity and becomes disillusioned.

Basically, the 21- to 24-month-old child is using his parents as resources when he orders them around. However, there are times when parents cannot serve as resources. The child may ask a parent to play with him whenever the parent tries to read, watch television, write or talk on the telephone. Such activities seem senseless to the child. From his point of view the parent could spend his time better by playing. In general, the child has difficulty understanding that there is a limit to the time a parent can devote to play. If the parent reads a story to the child, the child wants it repeated. If the parent plays hide and seek, the child does not want to stop. The child keeps commanding "more," and the parent tries to communicate, "Wait a minute – there is a limit." Although children cannot understand the responsibilities a mother or a father faces, it is important for parents to tell children that a limit has been reached – no more stories right now, I'm tired of playing, I want to read the newspaper, etc.



Hopefully the parent can demonstrate to the child the nature of compromise. When the story is read a second time, the parent and child are following the wishes of the child; when the parent reads the newspaper instead, they are following the parent's wishes. There are no formulas for compromise. It is a matter of negotiation. Each situation is different, and parents should allow children to participate in the decision making as much as possible. Neither party should automatically overrule the other.

In the process of responding to a child's commands and requests, parents also teach children about concepts of time and quantity. For example, between 21 and 24 months many children discover that they are not limited to the food on the table. They can request more candy, ice cream, and other treats from the refrigerator; and they can ask for gum and candy in almost every store they enter. If the refrigerator is empty, there always is more at the grocery store. For the two year old the possibilities are mind boggling and parents are bombarded with requests for special foods. When a parent tries to compromise with a child over this issue, he introduces concepts of time and quantity – "First eat your meat and then you can have a cookie," or "One animal cracker but not two." This kind of comment makes a significant contribution to a child's understanding of time and quantity. As the child gets older, the negotiations between parents and child will evolve naturally into more sophisticated concepts.

The 21- to 24-month-old child's propensity to command is a kind of possessiveness. The child considers parents as his own private property. His sense of ownership is extended to places as well as favorite objects. The child may regard the couch, or a particular chair, as his private domain. People sitting in these places without the consent of the "owner" are trespassers.

Possessiveness often increases during this age, and the child becomes more vocal in defending his property. This selfishness is distressing to parents, but it does indicate that the child is developing a clearer

picture of himself as a separate person with individual rights. From one viewpoint, possessiveness means that the child will not share. From another viewpoint, however, possessiveness marks out an area within which the child can express feelings of love and concern. This is most apparent in the child's attachment to favorite objects. Between 21 and 24 months a child can be observed taking care of objects as if they were genuine friends. The child may put his stuffed elephant on his Big Wheel and give it a ride. He may talk to the toy as it sits on the edge of the bathtub or insist that it sit next to him at the table. Of course the child expresses love for his parents and other favorite people too, but at this age one of the primary ways for the child to extend his love is through attachment to possessions.

Just as the child's ability to make demands grows between 21 and 24 months, so does his ability to comment on objects and events that interest him. At an earlier age the child typically commented on an interesting object by stating its name or by giving a simple description of the object's properties: hot, wet, gone. Now the child's list of adjectives is longer. However, the most striking thing about the child's comments is that they are used to communicate negative feelings. Instead of screaming when the puzzle pieces won't fit, the child says "hard" or "too big." Instead of crying when his diaper needs changing, the child says "change" or "baby wet."

Negative feelings need to be expressed, and until the child can use words he has no alternative but to cry and strike out. But once words are available, it is truly amazing how effective they are in releasing frustration, disappointment, anger and other bad feelings. Parents can help by using words like hurt, scared, mad, hard, tired, when they talk to their children about feelings.

Most two year olds are upset when parents scold them. Although they may be defiant from time to time, their feelings are hurt easily by criticism. A child at this age is struggling to accept and obey his parents' rules. For the most part he wants to do the

accepted thing, and he is afraid of disapproval. Language helps him deal with this concern. Frequently the child will recite rules that his parents have been trying to teach him. For example, whenever anyone in the house yells, the child may say "shh," or everytime the child sees someone step in a puddle on the sidewalk he may say "shoes wet."

Why does a child keep reciting the rules that he finds difficult to follow? Partly, he is learning through practice. Repeating a rule out loud makes it stick better in his mind. In addition, he is using language to check his perception, to find out if a rule really applies to this situation. The child wants an adult to respond, to say "Yes, that's right – I was talking too loudly," or "No, it doesn't matter if the man steps in the puddle – see, he has boots on." Responding to a child in this way is important. It helps him learn the exceptions to a rule (There always are plenty.), and it shows him that adults, as well as children, break the rules. The child can accept his own mistakes more easily when he sees that big people also talk too loudly and walk through puddles.

With greater language development, books and pictures become even more important. Between 21 and 24 months many children are able to appreciate a short story. Usually it is necessary for parents to paraphrase a story, because some of the sentences in the book will be too complex for the child or will refer to ideas that he cannot understand. Paraphrasing is not that difficult if the parent takes the time to do it. Reading a story usually works best if the parent reads the page silently and then tells the child in his own words what has happened, leaving out events that are too complicated. Some parents have the impression that a young child's attention span is so limited that they should read through a story as quickly as possible. Actually the reverse seems to be true: the faster the parent reads a book, the more likely the child is to lose interest. Reading slowly has several advantages. It allows the child enough time to comprehend what has happened on one page before proceeding to the next. More important, it gives the child time to take an active part in the reading. At an earlier age children use picture books for matching – they try to find matching objects on different pages. The 21- to 24-month-old child is still interested in this kind of activity. While he listens to the story, he will be scanning the page, looking for interesting objects to label or match. Reading slowly lets the child interrupt the story to point out these interesting objects.

The right pace for reading varies from child to child. The simplest way to set the pace is to let the child turn the pages. Sometimes the child will skip pages or turn the pages from back to front, which usually is a sign that he wants to play a picture matching game rather than listen to a story. There is nothing wrong with that; just as much can be learned by looking at the pictures as by listening to the story.

Picture labeling takes place on a more advanced level when the child begins to talk about the past. Instead of simply labeling a picture of a bus, for example, the parent and child talk about the bus they took at the zoo or the bus that they saw wrecked on the highway. Talking about past experiences is difficult for a child between 21 and 24 months, but it does occur. A parent can encourage a child with comments like "Just like the bus at the zoo," or "Remember the broken bus on the highway?" If the child seems to understand, this kind of comment may be appropriate. If not, forget it for awhile. In either case, parents should not bombard the child with all the associations they can remember regarding a particular picture. Two year olds, like other people, don't enjoy a lecture.

Being able to appreciate a story is an act of imagination. Between 21 and 24 months the child's ability to use his imagination for pretending becomes more apparent. Again, the child is using symbols (in this case pretend behavior) to represent reality. Favorite pretend themes continue to revolve around eating, sleeping, cleaning, and other everyday activities. However, make believe play is elaborated with more language. The 18- to 21-month-old child may have pretended to drink from an empty cup, but now he likes to pretend there is a particular liquid in the cup. Suppose the parent asks him whether he wants lemonade or chocolate milk and he says chocolate milk. Then the parent pretends to put some chocolate milk in the glass and stir it around. The child enjoys this elaboration and will respond if the parent asks him other questions, such as "Do you need more chocolate?" or "Is it too hot – need an ice cube?"

At this age most of the verbal elaboration of make believe play must come from an adult. The child is an enthusiastic participant and listener. One popular form of imaginative play that stimulates the child to talk involves pretend phone conversations. From an early age children find telephones fascinating objects to play with. If a child is talking a lot by the age of two, he may be interested in using the telephone for a two way conversation. An adult can use the real phone to call the child on his toy phone. If the participants shout loudly enough, these pretend conversations can be heard from one room to another. The conversations are likely to be short and rather confusing, but fun for everyone. For example, the child may be learning to group people he knows into families, and his conversation will consist of questions like, "Is Jennifer there?", "Is Jim there?", "Is Karen there?"

Often it will be necessary for the parent to demonstrate a new telephone theme. For instance, the parent may call the child and ask him if he wants a pizza and then deliver the pretend pizza to the child. If the child likes the idea, he will call the parent next time and order the pizza himself, or maybe he will decide to order ice cream cones instead.

Parents should be aware that make believe play may not occur immediately with new toys. A child who receives a new toy phone or a set of play dishes will investigate the physical characteristics of the objects before pretending. The child will push and twist the phone buttons and dials; he will remove and replace the lids on pans; he will pour water from one cup to another. If the object has interesting possibilities as a manipulative toy, it may be a long time before the object is used for pretending.

The same kind of pattern is relevant to books and story reading. A child needs plenty of time to explore books, turning the pages and searching for particular

pictures, before he is ready to use the pictures to build an imaginative story. Once the child has accumulated enough experience to realize that every book represents a new story, this period of exploration is not as important as it had been.

Between 21 and 24 months a child may begin to use pretending to represent situations that are frightening. For example, a child who is afraid of a big swimming pool may pretend to swim in the bathtub. A child may pretend to be stuck between his father's legs. He may pretend that his doll has hurt himself falling out of the highchair or that two toy cars have had a terrible accident. These kinds of make believe themes are only barely visible at this age, but they will grow in intensity and detail during the next several years.

In one sense the child uses his imagination to overcome fears. In another sense, however, the child's increased imagination creates fears. The 23-month-old child looks forward with excitement to his two-year-old birthday, but this same ability to imagine and anticipate may increase various fears. Suppose the child has been afraid of the dog next door whenever the dog barked at him or ran toward him. Now he may be afraid when passing by the house just because he imagines the dog coming out. Perhaps the child has been afraid of loud sirens in the past. Now he may become anxious when he hears a distant siren because he anticipates its coming closer. These imaginative fears may be highly unrealistic – for example, the common fear of going down the drain in the bathtub.

There is a close link between feelings of fear and excitement. Experiences that are frightening can be exciting as well. The child who is afraid of sirens probably finds fire engines very exciting. The child who is afraid of the drain probably gets quite excited watching soapsuds disappear down the drain. The line between fright and excitement is a fine one. Being pulled in a wagon is great fun up to a certain speed; beyond that speed it is terrifying. Being pushed in a swing is tremendously exciting up to a certain height; beyond that, it too is terrifying.

As the imagination of the 21- to 24-month-old child increases, so do his fears. We already have mentioned that pretending represents one way to approach the problem. The frightening experience can become exciting through make believe. Although the 21- to 24-month-old child is not sophisticated enough to translate many fears into imaginative experience, he can make a start with adult help.

The child who is afraid of a dog can play with a stuffed dog or listen to a story about dogs. The child who is afraid of sirens may enjoy a story record about firemen, or he may make siren noises while playing with a toy fire truck. Even the drain can become part of pretend play. The parent and child can talk to the soapsuds that have gone down the drain, saying good-bye to them and then asking if they are hot or cold or hungry. More water can be sent down the drain to warm the soapsuds, to cool them, or to feed them.

When a feared object is also exciting, parents can help a child find experiences in which the excitement outweighs the fearfulness. Walking a dog on a leash may be exciting to the child who is afraid of some dogs. Going down a slide may be an exciting substitute for the child who is afraid of swinging. The child who is afraid of having his hair washed may love to play in the spray from the outside sprinkler.

Supporting the child in real experiences and encouraging pretend experiences are both valuable ways to deal with fears. Both are needed to help a child distinguish between fantasy and reality, to distinguish between imaginative fears and fears based on real danger. The two year old child is just beginning this process. His imagination will continue to bloom, and it will become increasingly difficult for him to recognize the imaginative part of his fears. Encouraging the child during the next few years to extend his make believe play will help him learn the power and limitations of his imagination.

The two-year-old child is socially much more sophisticated than the one-year-old. The child realizes that he is a separate person with a distinct name and that other people are like him, yet different from him. He realizes that people are organized into families, although the relationships within families are far from understood. Most important, the child realizes that social life ebbs and flows between the extremes of cooperation and conflict.

The 21- to 24-month-old child does not understand the principle of cooperation. However, he still is able to cooperate a good part of the time. He is able to imitate much of the play activity of older siblings. He can build simple structures, draw crude pictures, and join in physical games. To a limited extent, he may understand the idea of taking turns – at least he usually understands when it is his turn. Still, cooperation is fragile and often turns into conflict.

The two-year-old child is able to assert himself and express his aggressiveness. He even may be able to do it in a devious manner. Many parents state that their two-year-old child knows how to get older siblings in trouble by yelling for help when the older siblings actually are not bothering him.

Sooner or later the classic dilemma of parents arises. Should they intervene when children are fighting or let the children fight it out by themselves? There seems to be broad agreement among parents that no single response is appropriate all the time. If a child is being hurt seriously, parents should intervene. On the other hand, parents should not interfere in every little squabble. Within these broad guidelines however, there remains plenty of room for individual differences between parents. Clearly there is no perfect response for every situation. Within reason, one parent's judgment is as valid as another's.

In deciding for yourself the extent to which you should intervene in fights between children, there are many considerations. Here are some that seem important to us. If you are present when children are fighting, the situation is different from when you are absent. Being present, you cannot help but observe if a child is teasing, hitting, or bullying. Perhaps the conflict is being resolved by the children in a way that you find healthy, i.e., someone is standing up to the bully, or the children are arguing in a "constructive" manner. In this case your silence communicates to the children that you approve of their behavior. On the other hand, if you really disapprove of their behavior but say nothing, you are sending the children the wrong signal. You are condoning behavior that you find anti-social.

If you are in another room, the situation is different. The children can interpret your lack of action as meaning that you didn't hear the fight or were too busy to come see what the trouble was. Sometimes the children find their own solution. At other times the conflict continues to intensify and you are forced to intervene.

Whether you are present or not, if a fight between children is making you furious, some kind of response is called for. Repressing your feelings will only make them come out later in an inappropriate way. Sometimes it is possible to separate fighting children or to remove the objects they are fighting over. At other times it is appropriate to criticize children or to threaten them with punishment. Occasionally it may be appropriate to shout at children or to punish them physically. Much depends on the beliefs of parents and the kind of discipline that they feel natural in using.

In general, conflict should be handled through a trial and error process of compromise and negotiation in which both children and adults have the right to express themselves.

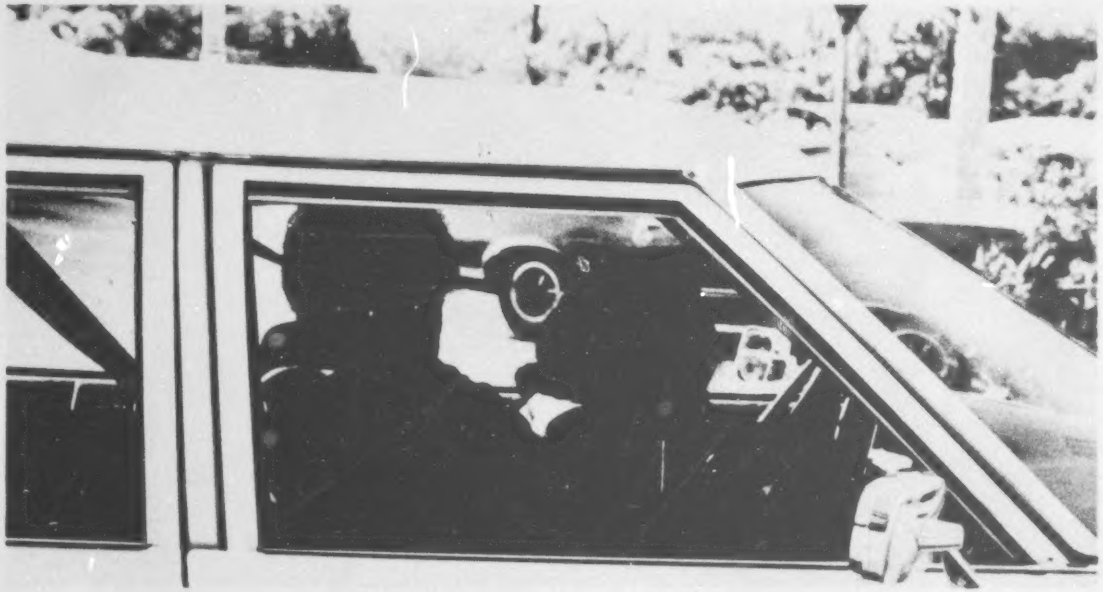
At best the two year old is a long way from being really independent. Although he has learned new skills, new concepts, and new ways of controlling the people and things in the world, he is still dependent on an adult for all his major needs. The next several years will be spent mastering and perfecting the skills that he already has and acquiring skills and competencies that will enable him to function in a variety of new ways. If he has lived in a physical environment and social environment that has fostered his curiosity and provided him a feeling of competence, he is ready to take advantage of the learning opportunities that future years will bring.

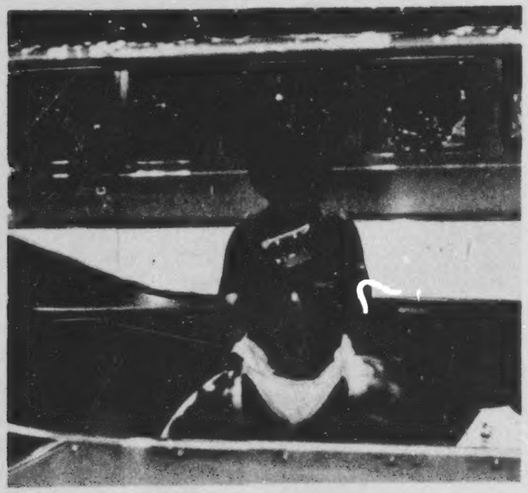
DISCOVERIES AND ACHIEVEMENTS

The major occupation of the baby in the second year of life is exploration. Ever since his first birthday he has been on the go – emptying, filling, yanking, pulling, opening, shutting and tearing apart. Although this zest for exploration does not diminish as the baby approaches two years old, there is a change in focus. Kitchen cabinets, dresser drawers, the dog's dish, and the roll of toilet paper are beginning to lose their appeal. He is ready to explore new horizons, and is the first to agree to a walk to the store or an excursion in the car. On these outings he notices all kinds of things that escaped his attention earlier, things high up or far away, things that are tiny and intricate, things that are broken, or things that have changed a little. He may be the first to point out that the boy down the street is missing a tooth, or the butcher has shaved off his moustache.

Out-of-doors is a favorite place for the twenty-one month old child. A back yard or corner lot is full of all kinds of interesting things: plants to tear up and taste, pebbles to toss, mud to gather, lawn mowers to investigate, rocks to climb on, and puddles of water to splash in. If the child lives in a house or apartment with easy access to the out-of-doors he may spend a considerable amount of time going in and out of the door. Parents may feel that the child either can't decide where he wants to be, or else is just trying to be difficult. More likely the child is contrasting the two environments and enjoys making a choice.

A trip in the car that made him restless a few months ago is now a coveted activity. There are so many things to notice and point out. Things that he learned to know from close up examination he can now identify from a distance. Things that he learned to identify at a stand still, he now identifies in motion. Some children point out everything that





lock's familiar: a snowman, a dog, a gas pump, a mail box. Other children select one thing that interests them, and search for it everywhere. One youngster learned to identify McDonald's restaurants, and would shout out excitedly whenever she spotted the sign. Another youngster learned to identify cement mixers, which he called putty-putty. He announced each "putty-putty" that went by and insisted that everyone else in the car take note of his find.

The youngster's interest in pointing out far away things as he goes on a drive is paralleled by a new interest in very tiny things. It is an age when a child is fascinated by bugs. Usually he learns the name of one particular bug and applies it to every bug he sees. Several children that we visited called every bug a fly. Other children may use the word bee, ant, mosquito, or creepy to designate the category of bugs. The child's reaction to this "ant," "bee," "fly," or "creepy," may range from sheer delight to absolute terror depending upon both his own first experiences and his parents' reactions to bugs. Once he has decided that a bug is either safe or dangerous, he is not apt to pay attention to his parent's attempts to discriminate between good bugs and bad bugs. If he has seen his father stamp disgustedly on a palmetto bug, he is not going to be soothed by his mother's assurances that the bug on his wagon is only a harmless dragonfly. On the other hand, if he and his mother have had fun chasing butterflies, he may not pay attention when his mother warns him that wasps aren't good things to chase.

As the child points out cement mixers, ice-cream stand, McDonald's signs or creepies, he is showing an ability to develop and extend a category. In other words, the child has developed a category of things in his mind and has determined the attributes that make something fall in that category. A large noisy truck with a back portion that spins is a "putty putty," a little thing that creeps or flies is a "creepy." The more putty-putties or creepies the child finds the more opportunities he has to solidify and extend his category. After a while he begins to subdivide his

categories – perhaps he discovers that there are crawling bugs and flying bugs, or he develops broad categories which combine several smaller categories.

One of the first broad categories that most youngsters form in their minds is the category of house. They recognize that houses are different, but that there are certain things that belong in any house. Exploring a new house involves looking for all the things that belong in the category "house." The child may search for a refrigerator, a bathtub, a wastepaper basket, a television set, and a doorbell. If he is told that there is no television set he looks very confused. In the child's scheme a television set goes with the house.

As the child explores a new environment his interest may shift from taking a general inventory to checking out small details. He may hunt dials, keyholes, telephones or light switches. He may become particularly concerned about things that are broken or parts that are missing. A twenty-two month old boy we were observing was visiting his sister at nursery school. He picked up a set of ear phones that plugged into a listening station. He was about to put them up to his ear when he noticed a disconnected wire. He turned to his mother and asked, "telephone broken?" A little later he picked up a balloon with some slight defects in the rubber. He put his finger on one of the spots and said, "measles, mommy?"

The visual inspection of detail that characterizes so many of the youngster's explorations makes books especially attractive. Children will now sit by themselves for several minutes at a time thumbing one by one through the pages of a book. When a particular picture appeals to them they will point to it with one finger, and may even give it a name. When they come to a picture that they do not recognize, they may try to translate it into something familiar. For instance, a city child reading a book about farm animals may come to a picture of a cow, and call it dog, in a questioning voice. This gives the parent an opportunity to say: "That is a cow – it goes moo, let's find a picture of a dog."

The child's ability to interpret pictures and to recognize pictures of real objects is an instance of the child's increasing ability to utilize symbols to extend his immediate experiences. We have already considered how the child extends his categories by attending to distant things or things that are very small. As we watch the child thumb through a book, we see him associating pictures with past experiences, storing up images for future reference. In other words, pictures help a child extend himself in time as well as in space. The child may match the picture of a bridge with the bridge he crossed on the way to Grandma's last week; or he comes across a Santa Claus poster, and talks about visiting Santa. Pictures in this instance are serving the same function as words. They are enabling the child to remember things that have taken place and anticipate future happenings.

It is not surprising that the child who is interested in pictures and in words is also interested in finding lost objects. A twenty-one month old may stuff a lollipop in his mother's purse. Several hours later he will rummage through the purse until he finds it. Or he might leave his teddy bear in an out-of-the-way spot before he goes to bed and hunt it up in the morning. In either instance, he has an image or representation of the object in his mind. He is able to remember this object without actually seeing it or holding it in his hands.

Although the twenty-one-month-old child is capable of this kind of mental imagery he has certainly not lost his interest in manipulating real objects. He is seldom seen without something or other in his hands, and he continues to search out ways of pulling things apart, rearranging things and putting them back together. He is getting much better at aligning puzzle pieces and can probably fit several different shapes into a shape box or put together a simple inset puzzle. He is able to screw a top on a bottle using one hand to hold the bottle and the other hand to turn the lid.

Although the child may enjoy playing with toys some of the time he is probably more interested in exploring some novel kinds of materials. He is fascinated by materials that stick to his fingers or adhere to other things. He enjoys activities like finger painting with shaving creme, dusting the furniture with talcum powder, buffing the floor with shoe polish, or painting himself with make-up. The greater the mess from the parent's point of view, the happier the child seems. This is an age when crayons and fountain pens are particularly intriguing. The child is delighted by the fact that the crayons make a mark. At first he may be satisfied with marking up a paper or a notebook but pretty soon he extends his explorations. He crayons the table, the kitchen floor, the wall paper, the back of his hand, or perhaps his mother's address book. He may turn his crayoning into a hidden object game and cover up a page in a book until the writing disappears. Making a mess seems to be even more fun at this age when two or more children are playing together. Within a very few minutes a group of children can pile a huge heap of assorted articles in the middle of the bedroom floor. Putting these articles back in place however, is an absolutely endless task.

In time this mess making turns into constructive activity. The child becomes interested in stacking some things in high piles and arranging others in rows. He learns how to pack sand in a container and to make a row of mud pies. He experiments with

crayoning techniques and learns to make lines and circles. Parents can help children turn mess-making into a creative activity by providing opportunities for "controlled" experimentation. Teaching a child how to construct a simple tunnel or enclosure increases the fun of block play. A tub of soapy water and a wash board, a ball of dough and a rolling pin, a paint brush and a bucket of water can provide the opportunity for making a mess within limits.

Another kind of experimentation that plays a dominant role at this age involves body movement. The child loves to jump, run, throw, climb, wheel himself around on the play ground or in the back yard. He experiments with various types of large muscle activities involving thrust or acceleration. He jumps with two feet off the bottom step of the staircase or goes from standing to running. He asks for a push on the swing, and delights at going up in the air. He gets very involved in a variety of throwing games, like tossing a ball at a target or throwing pebbles in a ditch. He makes a toy airplane fly through the air or zooms a truck across the room. When he was just a little younger the child held the airplane while he made it fly and pushed the truck across the room.

Muscle coordination is involved in all the 21 to 24 month old's explorations. Whether the child is drawing with a crayon, balancing blocks, or zooming an airplane through the air, he is increasing his ability to coordinate a set of muscles to accomplish a specific task. The type of muscle coordinations or motor skills that a child develops depends on the nature of his interests and opportunities. One child may learn to swing himself; another child may learn to climb a tree. One child may learn to scribble with a pencil, another child may learn to use a screwdriver or wrench. Every new motor skill that a child learns is important because it adds to his feeling of self confidence.

One skill that may concern parents of 21- to 24-month-old children is toilet training. This skill also requires muscle coordination. During this age many children acquire the muscle control necessary to learn toileting skills. If a child goes long periods without wetting or soiling his diapers, or if the child goes to the bathroom at regular intervals, it is a good sign that he is physically ready for toilet training.

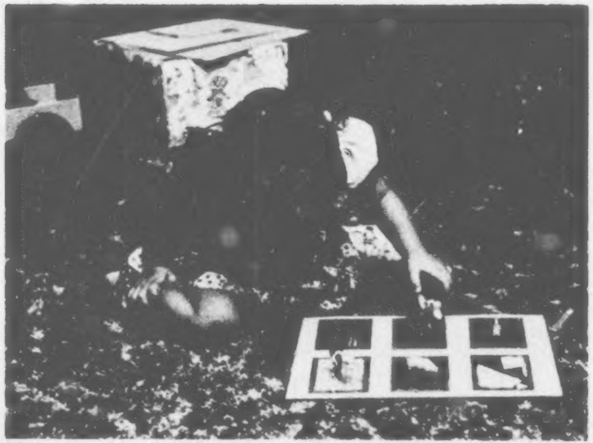
Many parents choose to train their child before he is two years old; other parents do not even consider training a child until later. There is no set age at which children should be toilet trained. The right time for a child depends on the expectations of the parents and the characteristics of the child. Just as some children continue to put objects in their mouths for a longer time than other children, some children take longer to toilet train. A child may want to use the toilet because it makes him feel more grown up and independent. Another child may feel more independent if he goes to the bathroom in his diapers whenever and wherever he pleases. The most important thing for parents is to be as relaxed as possible about toilet training. As with other self help skills, the child has mixed feelings about it. He wants help in learning a new skill, but he doesn't want to feel forced. When parents are very strict or overly concerned about toilet training, conflict develops.

With a relaxed parent, the child learns that he can use the toilet without giving up his autonomy. Parents choose different methods of toilet training. Some parents try to establish habits by putting children on the toilet at regular intervals. Others try to anticipate and rush the child to the toilet at the right time. Most parents rely on reward and punishment to some extent. Probably the oldest and most effective technique is modeling. The child learns by watching the other members of his family use the toilet. Regardless of the methods used, the goal should be the same – to teach the child toileting skills without creating a struggle between parents and child.

If we had to select a single word to summarize the typical two year old, the word "busy" would be a good choice. Whether he is practicing a new motor skill, investigating the potential of a box of crayons, constructing a blocktower or rearranging the shelves in the neighborhood supermarket the two year old is actively engaged in the task at hand. At times the adults around him are delighted with this activity. They admire his scribbles, praise his blocktower and laugh at his efforts to empty a grocery cart. At other times, these same adults disapprove of his explorations. They scold him when he crayons on the wall or knocks down the cans in the supermarket. Both child and parent are faced with a dilemma. The child wants to continue his explorations but he doesn't want to make his parents angry. The parent on the other hand wants his child to be curious but doesn't want him to be destructive or make an unreasonable mess.

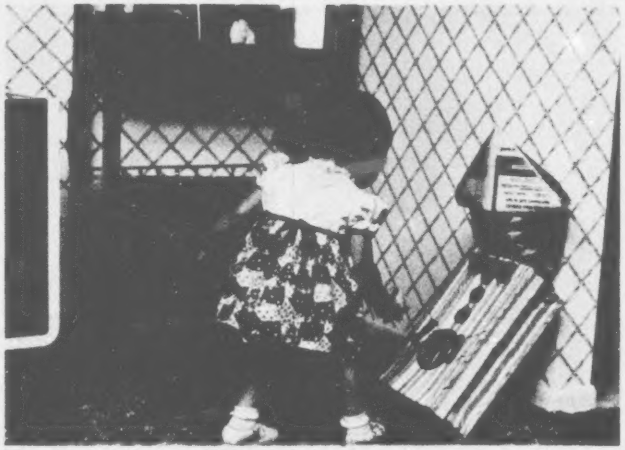
It is not an easy dilemma to solve. If parents allow their child to get into anything he wants, they will find it increasingly difficult to expose him to new experiences. If on the other hand they impose too many limits on their child's explorations he will be fearful of new experiences or else be defiant and reckless. Obviously, it is important for parents to strike a healthy balance, to find a way of imposing reasonable limits without destroying their child's most valuable asset – the spontaneous desire to learn.

Make a pegboard out of a box cover and popsicle sticks.



Make squares of different textures on a sheet of cardboard. Your youngster will enjoy placing her animals or parking her cars on the squares.

Show the baby how to use a book as a platform.



Make your baby a scare-crow box. At first she will drop her ball in the hole. After a while she will learn to throw it.

The child is just learning to put pop beads together.

Cut foot prints out of linoleum squares. Your youngster will use them as stepping stones.

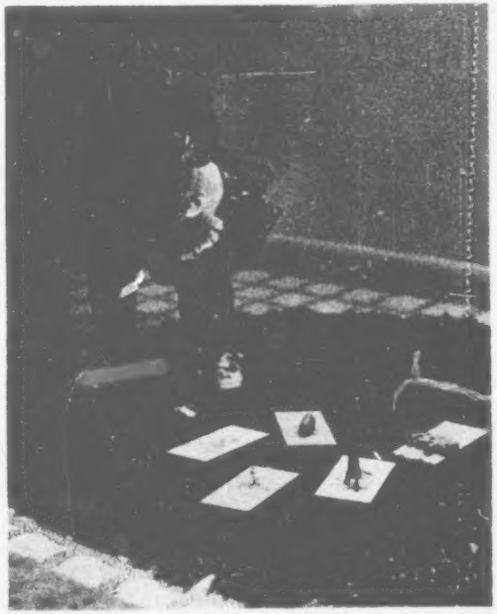
PROBLEM SOLVING

Cut out a piece of cardboard the shape of a boot. Punch holes in it. Show your youngster how to lace a shoelace through the holes.

Blocks with pictures or letters are particularly interesting.

Cut a picture in half and mount it on cardboard. Your youngster may be ready for this simplified jigsaw.

A tire swing is both safe and fun.



Draw pictures on cards of small toys or objects – cars, animals, keys, a toothbrush, etc. Let your youngster place the matching object on the card.

Tie a piece of ribbon or bright yarn between two chairs close to the floor. Sing, "Jack be nimble
Jack be quick
Jack Jump over the
Candle Stick"
as your baby steps over the ribbon.

PROBLEM SOLVING

A tin can "mallet" and a beach ball suspended in a basket – makes a challenging game.

Place a small toy in the toe of a sock. Taking it out is an interesting challenge.

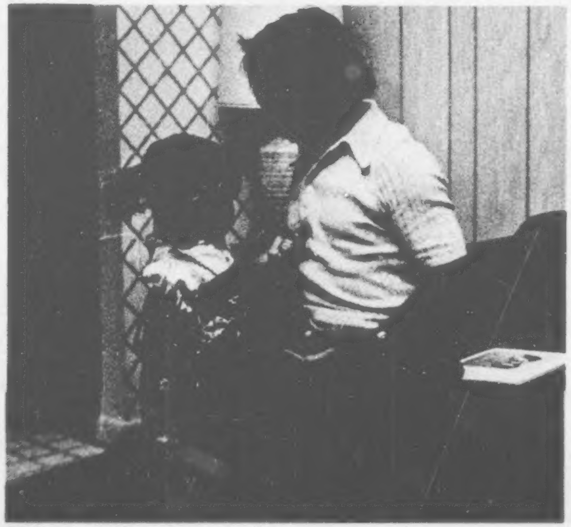
Wrap a toy in a piece of foil. Your child will enjoy unwrapping it.

Make or buy a spindle toy. Take turns with your baby placing the rings on the spindle.

Make a texture poster for your child's room.

Make a strip story book for your child. As you turn over each strip of the cover he will see more of the hidden picture.

Name pictures as your baby points. Then give him a turn to name.



Make a stethoscope out of a film case and play a doctor game before your baby's check up.

Let your baby feed his pet. Dry cereal, or even pictures of food work very well.

Two pieces of wood with a strip of hose make fine 2-way telephones.

Make a pair of eyeglasses for your baby out of long pipecleaners.

Hide something in your hands and ask baby to guess what's inside.

Make a wagon out of a box and four round lids. Now your child will enjoy taking a doll or a teddy bear for a walk.

Save empty cereal boxes, juice cans, baskets and frozen food boxes. You and your baby will have fun playing store.

Make the puppet talk to your baby.

Save your old necklaces. Your child will put them to use.

A stick and string makes a fine dust mop.

Give your baby a paint brush, a newspaper, and a dish of colored water. Let him paint the newspaper. Remember the fun at this stage is dipping – stroking and seeing the color come off. Do not expect a picture.

Make a hobby horse out of a broom stick. An old sock makes a fine head.

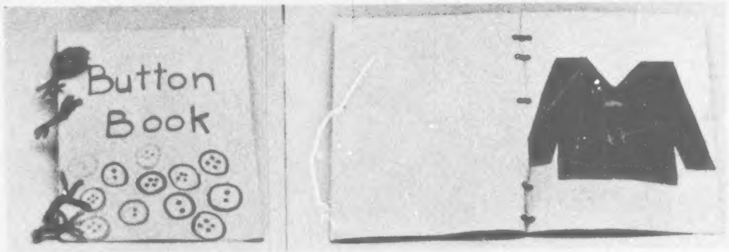
On a ride with your child point out things that might interest him.

Let your child talk to relatives and friends on the "real" telephone.

Your child may be ready to make a hand-puppet talk.

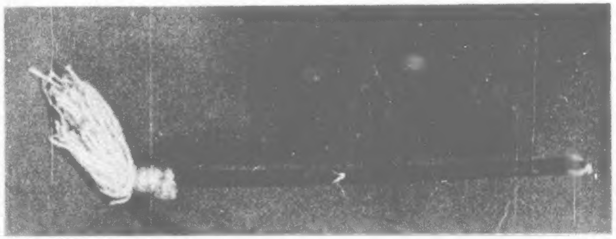
Pots, pans, large spoons and water are good outdoor play toys.

BUTTON BOOK



Materials: Yarn Buttons
Ribbon Crayons
Art paper or other heavy paper

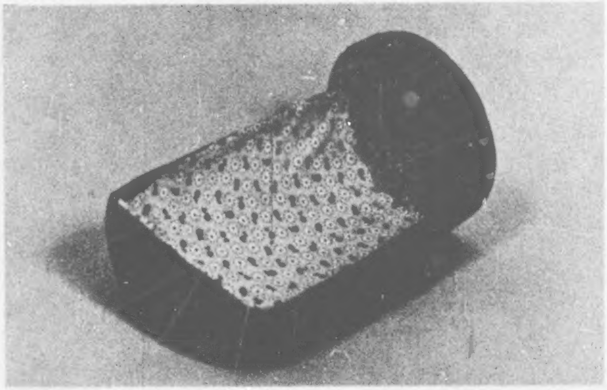
How to Make:
1. On several sheets of paper draw a dress, shirt, pants, or a hat in a simple outline drawing.
2. Glue one or more buttons on each page.
3. Make 3 holes on one end of each sheet of paper.
4. Tie your book together with ribbon.



MOP

Materials: Dowel, rod or tube from large pants hanger
White yarn
Pipe cleaner
Glue

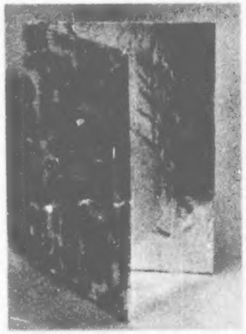
How to Make:
1. Make two holes on top of tube.
2. Paint tube.
3. Attach pipe cleaner to top of tube to use as a handle.
4. Cut yarn in strips.
5. Make mop head by gluing strips on end of tube.



CRADLE

Materials: Oatmeal carton
Fabric Piece
Glue

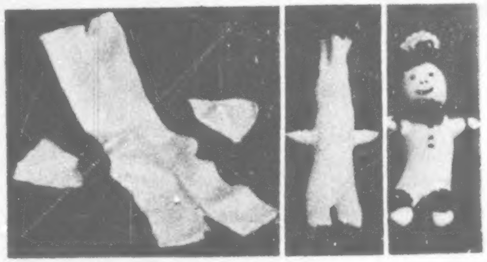
How to Make:
1. Glue the top on the oatmeal carton.
2. Cut the carton as in the photograph.
3. Line with fabric.



MIRROR BOARD

Materials: Tagboard or stiff cardboard Foil
Contact paper Glue

How to Make:
1. Cut tagboard into two equal pieces.
2. Tape the two pieces together so that they can be folded like a book.
3. Glue contact paper with bright patterns on one side of cardboard.
4. Glue foil on the other side.



RAG DOLL

Materials:
Sock
Yarn
Embroidery thread
Stuffing (foam – cotton or nylon stocking)

How to Make:
1. Cut the toe out of sock, and cut the toe into two pieces.
2. Make a V cut in the foot of the sock.
3. Sew up bottom of sock.
4. Sew on toe pieces below the sock cuff as arms.
5. Sew on features with thread.
6. Stuff sock.
7. Sew yarn on head, neck, arms and legs of doll.

FINGER PUPPET

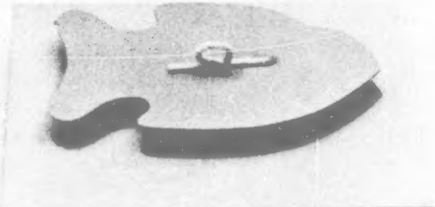
Materials:
Cardboard
Picture from magazine

How to Make:
1. Cut cardboard into circle or rectangle.
2. Paste on picture to make a cardboard puppet.
3. Make hole in puppet for child's finger.

TETHER BALL

Materials:
Plastic 6-pack holders
Rope
Ball

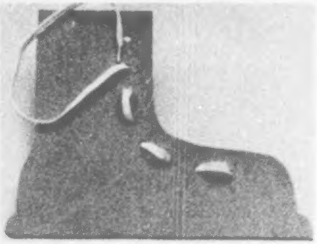
How to Make:
1. Tie together two or three plastic holders from six-pack soda cans.
2. Insert ball into the net made by the plastic holders.
3. Tie the six-pack holders around the ball.
4. Tie a rope to the holders and hang the ball from the ceiling.



PUZZLE

Materials:
Sheet of colored tag board and sheet of cardboard
Pipe cleaner
Razor blade
Crayon
Glue

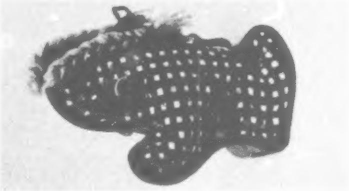
How to Make:
1. Draw outline of fish or other animal on tagboard.
2. Cut out fish with razor blade and glue a pipe cleaner handle on it.
3. Glue the fish stencil to cardboard, as in illustration.



BOOT LACER

Materials: Shoe lace
Tagboard

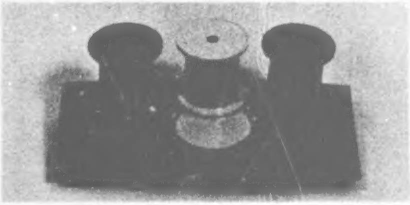
How to Make:
1. Draw outline of boot on tagboard.
2. Cut out holes for lacing.



OVEN MITT

Materials: Yarn
Large needle

How to Make:
1. Make braids out of yarn.
2. Sew braids and features on oven mitt as shown in the illustration.

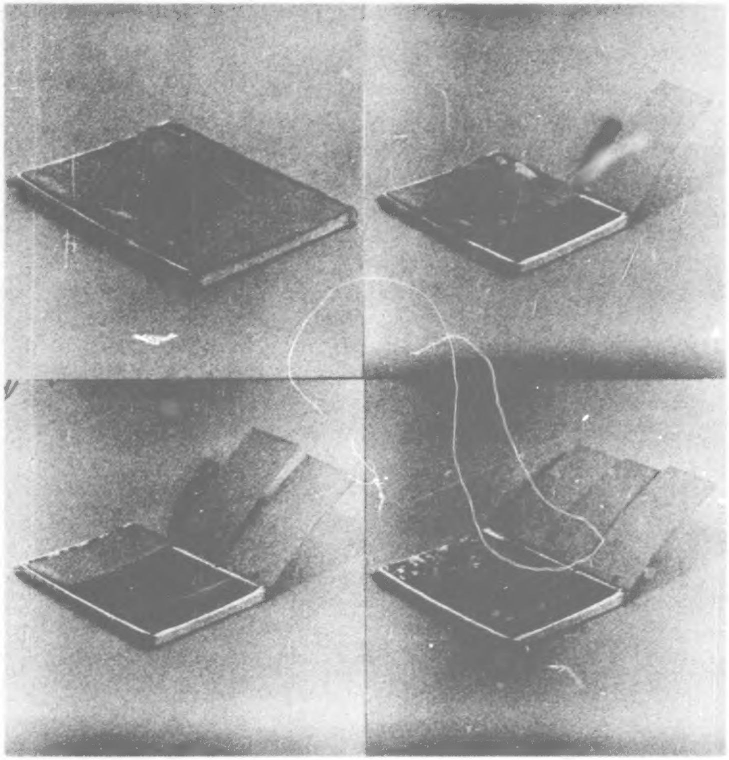


SPOOL TRAY

Materials: Large spools from ribbon
Non-toxic paint
Tagboard strip

How to Make:
1. Paint each spool a different primary color.
2. Paint a circle on the tagboard the size and color of each spool.

"GUESS THE PICTURE" BOOK

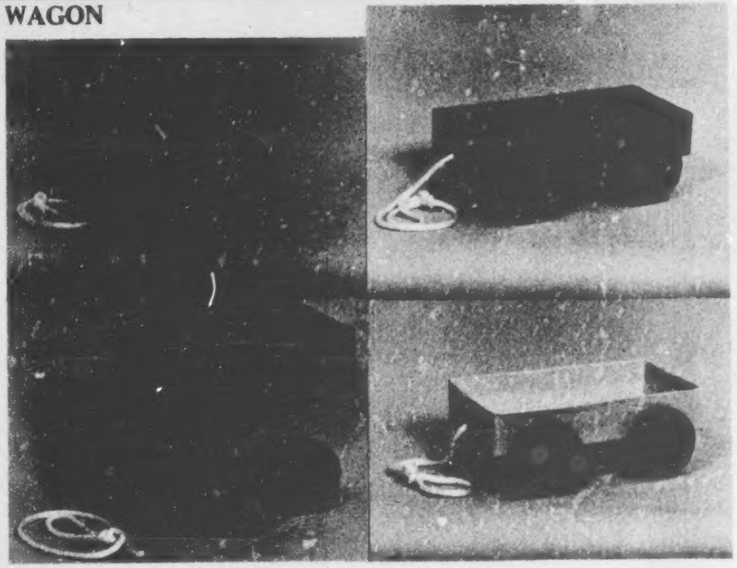


Materials: Spiral notebook (can be a used one)
Pictures from a magazine
Non-toxic glue

How to Make:
1. Cut the first page into three equal strips as shown in picture.
2. Glue a full page picture on the second page.
3. Cut the third page, fifth page, seventh page, etc. into three equal strips.
4. Paste a full size picture on each uncut page, the fourth page, sixth page, etc.

How to Play: Turn over one strip at a time. Let your child try to guess what each picture is.
Continue to add new pictures.

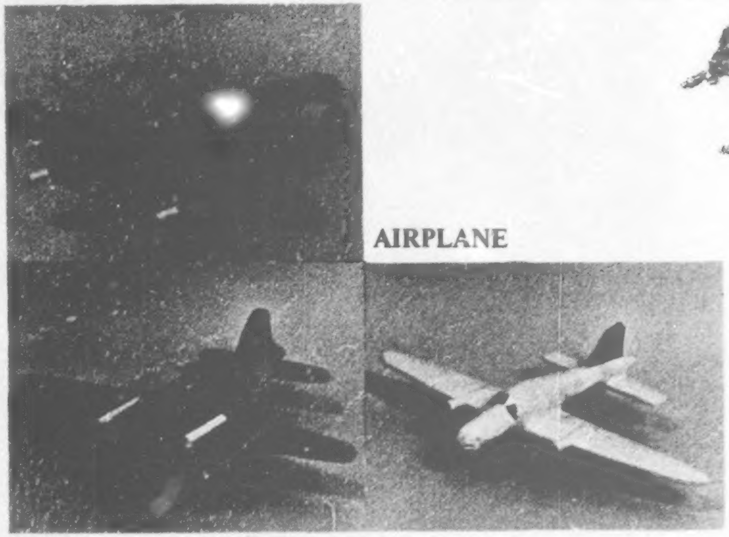
WAGON



Materials: Shallow cardboard carton 9" x 16" x 3"
Heavy corrugated paper
4" length of ¾ inch nylon rope
Wooden dowels 5/16" circumference – 24" long
Cardboard tube from pant hangers
Glue
Contact paper

How to Make:
1. Reinforce box with pieces of corrugated paper cut to fit bottom and sides.
2. Cut 2 axles from dowel – 11" each (or longer if you use a bigger box).
3. Cut 2 axle holders from pant hanger tube, 8½" each.
4. Cut out four wheels in 5" circles – (wheels should be double thickness) and poke hole in the center of each wheel.
5. Glue axle holders to underside of box. Insert axle in holder, and glue on wheels.
6. Make hole in front of wagon and make a handle from nylon rope.
7. Cover wagon with contact paper.

AIRPLANE



Materials: Tube from paper towel roll
Cardboard tube from pants hanger
Strip of corrugated cardboard
Contact paper
Rubber Cement

How to Make:
1. Use cardboard tube to make body of plane. Cut three or four inch slits lengthwise in both ends. Overlap the cardboard at both ends and glue together so that front and rear ends are tapered.
2. Cut wedge shaped piece out of front end for pilot's window.
3. Cut the following pieces out of corrugated cardboard:
   1 main wing 1 tail
   1 tail wing   2 engines (from cardboard tube)
4. Glue plane body on top of main wing and tail wing.
5. Glue engines to main wing.
6. Cut slit for tail; insert it in plane body and glue.
7. Paint plane or cover with contact paper.

END